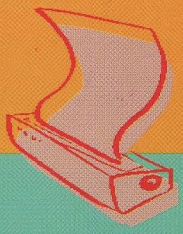
PowerPrint™

THE MACINTOSH PRINTING SOLUTION™



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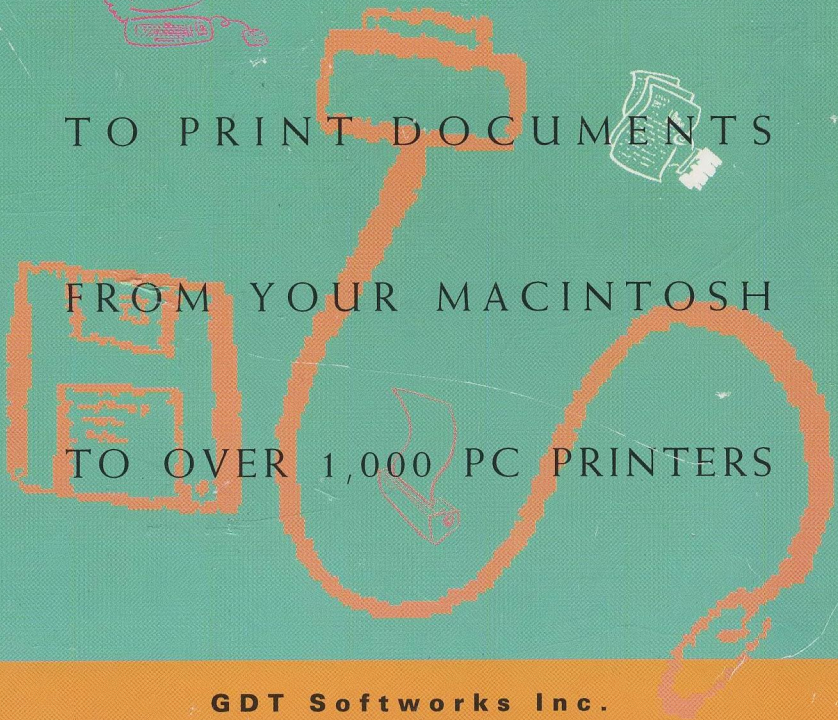
USER'S MANUAL

EVERYTHING YOU NEED

TO PRINT DOCUMENTS

FROM YOUR MACINTOSH



TO OVER 1,000 PC PRINTERS

GDT Softworks Inc.

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PowerPrint User's Manual

For your convenience we have included a sheet of registration labels with this product. Place one of the labels in the space below for your future reference.

(Place label here)

GDT Softworks Inc.

Table of Contents

Preface 7
- Welcome! 8
- What's in PowerPrint 8
- What PowerPrint requires 9
  - Computer Requirements 9
  - Printer Requirements 9
- About this manual 10
  - Organization 10
- We want to hear from you! 11

Chapter 1: Introduction 13
- What is a printer driver? 14
- What is PowerPrint? 14
- What PowerPrint can do 14
- What PowerPrint can't do 15

Chapter 2: Quick Start 17

Chapter 3: Installation 21
- Installing PowerPrint 22
- Cable Connection and Printer Setup 24
- Activating Your Driver 26
- Performing a Test Print 27

Chapter 4: Dialogs 31
- Chooser 32
  - Background Printing 33
  - Cartridges 34
    - Laser Beam Printers 34
    - DeskJets and LaserJets 34
- Page Setup Dialog 42
  - Paper 42
  - Reduce or Enlarge 43
  - Orientation 43
  - Photocopy Reduction 44
  - No Gaps Between Pages 45
  - Fractional Widths 46
  - Page Setup Options 46

Tray/Bin Select Options 67
Duplex Printing 68
Upper Tray is a Multi-Purpose Tray 68
Job Offset 69
Working with Trays 69

Chapter 5: SpoolMaster 71
Introduction 72
Features 73
Using SpoolMaster 74
Activating SpoolMaster 74
Printing with SpoolMaster 75
Working with SpoolMaster 76
The SpoolMaster window 76
Cancelling a document 77
Removing a document 78
Changing the printing order 78
Stop and resume printing 80
Setting the preferences 81

Chapter 6: Other Connections 83
Networks and Networking 84
NetSerial Connection 84
PowerPrint and remote printing 85
Switch-boxes 89
Other Macintosh connections 89
Communications Toolbox 90
Contact information 91

Appendix 93
Notes for PowerBook Users 94
Installing the drivers 94
Guidelines 95
Paper sizes 96
A Note About Fonts 97
Bitmap fonts 97
Outline Fonts 98
Toshiba & NEC Screen Fonts 98
Printer Compatibility List 100
Troubleshooting notes 109

Preface

Welcome! 8
What's in PowerPrint 8
What PowerPrint requires 9
  Computer Requirements 9
  Printer Requirements 9
About this manual 10
  Organization 10
We want to hear from you! 11

What PowerPrint requires

In order for PowerPrint to operate correctly, your computer system must fulfill certain requirements. The following sections outline some of these requirements.

Computer Requirements

PowerPrint is intended for use with the current series of Apple Macintosh computers with at least 2 Mb RAM. These computers include all recent computers since the Macintosh Plus and Macintosh Classic. You must be using System version 6.0.7 or higher. System 7 is fully supported and is the preferred operating system for PowerPrint.

PowerPrint can also be used with Atari ST computers running Spectre GCR, IBM compatibles running an Andor board, and Commodore Amiga computers running the Amax emulator (v2.06 or higher) as long as they are equipped with Macintosh Plus read only memory chips (ROMs) and at least 2 Mb of available RAM while in Macintosh emulation.

Printer Requirements

In order to use PowerPrint with a printer, the printer must be supported by one of the included printer drivers. Check the Printer Compatibility List in the Appendix for a listing of many popular printers which are supported. In addition, the printer must have a standard Centronics parallel interface. This type of interface is standard on almost all printers supported by PowerPrint. We also recommend that most laser printers have a minimum of 1.5 Mb total RAM.

The **Appendix** includes hints for portable Macintosh users as well as detailed notes on: standard paper sizes in PowerPrint, bitmap and outline fonts, a printer compatibility list, application and troubleshooting notes, and how to reach and best use GDT Softworks' Technical Support.

The **Glossary** provides some explanations of Macintosh and PowerPrint terminology.

We want to hear from you!

Your comments and suggestions are an integral part of our design process, and affect future upgrades and product offerings, and your input to GDT is appreciated and encouraged. Please tell us what you think about our software, manual, packaging, policies, advertising, etc. You can contact us through comments on your Warranty Registration Card or via one of the routes listed on the inside flap of this manual or in the Getting technical support section in the Appendix of this manual.

To become a registered user of PowerPrint, you must complete and mail the warranty registration card which is enclosed with your PowerPrint package. This entitles you to free technical support, notification of upgrades, and information on new GDT products. You will also find space on the card to tell us what you think about our product and let us know how you would like it improved.

Please complete and mail your warranty registration card as soon as possible to become a registered user of PowerPrint.

Introduction

What is a printer driver? 14
What is PowerPrint? 14
What PowerPrint can do 14
What PowerPrint can't do 15

with TrueType, Adobe Type Manager, Adobe Type Align, and LetraSet Font Studio.

PowerPrint implements many LaserWriter features, including reduction or enlargement, inversion, horizontal and vertical flips, pattern matching (in major applications), and landscape printing.

What PowerPrint can't do

Of course, there are certain things PowerPrint cannot do. As mentioned previously, it cannot interpret PostScript commands, and is not a PostScript driver. PowerPrint does not support applications that stray from Macintosh guidelines or make assumptions that they are printing to only an Apple ImageWriter or LaserWriter printer.

Quick Start

- If available, set Auto LF (Line Feed) = OFF or LF only.
- If available, set CR (Carriage Return) = CR only.
- If you are connecting to an HP LaserJet series or HP compatible printer which has a setting for Auto Cont(inue) set it to ON.

7. **Turn on your Macintosh and printer. Select the PowerPrint driver in the Chooser and verify that the appropriate port is selected.**

Note: *If you are connecting your printer cable to the printer port AppleTalk must be inactive.*

Note: *When using PowerPrint with a PowerBook Duo which is not docked, the modem port must be selected and AppleTalk must be set to "inactive".*

Note: *If you are connecting to the modem port of a PowerBook with an internal modem check that the Portable Control Panel (accessible from the Apple menu) has the port set to external modem.*

8. **Open a document and configure the Page Setup and Print dialog boxes.**

9. **Click Print in the Print dialog box to begin printing.**

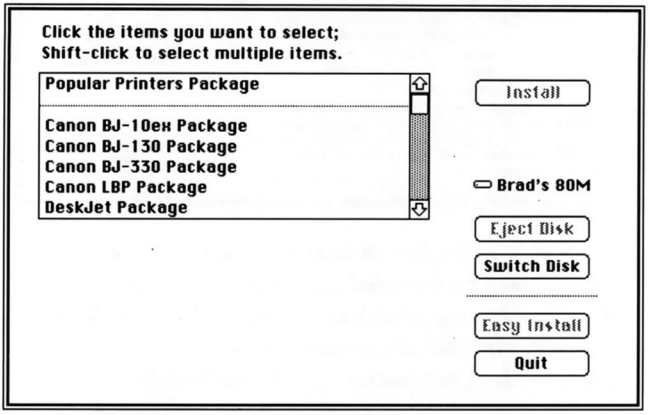
Provided that the PowerPrint cable is securely fastened, the printer is properly setup, and the correct driver has been selected in Chooser, the printer will begin printing. If you are experiencing difficulties refer to the detailed installation instructions in Chapter 3 and check the troubleshooting notes in the Appendix.

Installation

Installing PowerPrint 22
Cable Connection and Printer Setup 24
Activating Your Driver 26
Performing a Test Print 27

PowerPrint which was not available when the manual was printed. Read this document carefully. Select Quit from the File menu when you are finished.

3. Double-click on the Installer icon. Once the title screen appears, click on the OK button to continue. The installation window will be displayed.



Installer

The installation window, ready to install onto "Brad's 80M" hard disk drive.

4. From the installation window, ensure that your startup hard disk drive is selected. The currently selected hard disk drive is shown below the Install button. If the name of your startup disk is not displayed here, click on the Switch Disk button until it is (you may have to click it several times).

5. Select the appropriate driver package to install from the scrolling list on the left-hand side of the window by clicking on it once. If you are unsure about which driver you should be installing for your printer, check the Printer Compatibility List in the Appendix.

Note: *If you have a Macintosh PowerBook, you may wish to install the Popular Printers Package. This selection includes the Epson FX, Epson LQ, and the LaserJet II drivers which are recommended in the Notes for PowerBook Users section of the Appendix.*

9. Turn on your Macintosh. Leave the power to your printer turned off.

10. Most printers are preconfigured to work correctly with PowerPrint. We have included a HyperCard 2.0 stack with PowerPrint called the Printer Reference Stack. This stack contains setup information for a number of printers which are supported by PowerPrint. If you installed a driver package as described earlier in this chapter, the installer will have placed the Printer Reference Stack in the root directory (not in any folders) on your hard disk drive. Locate the Printer Reference Stack and run it by double-clicking on its icon.

Printer Reference Stack

11. Verify that your printer is properly configured for communication to the Macintosh. If your printer is listed in the stack, check the settings of your printer's DIP switches or front control panel against the recommended settings as they are listed in the Printer Reference Stack and make any necessary changes. Click on the Quit button to exit the stack when you are done.

If your printer is not listed in the Printer Reference Stack or if you do not have HyperCard 2.0 (or higher), consult your printer's setup or operations manual to set the DIP switches or front control panel of your printer to as many of the following settings as possible:

- Parallel communication
- If required, the proper emulation for the driver you wish to use (see the Printer Compatibility List in the Appendix).
- If available, set Auto LF (Line Feed) = OFF or LF only.
- If available, set CR (Carriage Return) = CR only.
- If you are connecting to an HP LaserJet series or HP compatible printer which has a setting for Auto Cont(inue), set it to ON.

Note: *If you are connecting your printer cable to the printer port AppleTalk must be set to "inactive".*

Note: *When using PowerPrint with a PowerBook Duo which is not docked, the modem port must be selected and AppleTalk must be set to "inactive".*

Note: *If you are connecting to the modem port of a PowerBook with an internal modem check that the Portable Control Panel (accessible from the Apple menu) has the port set to external modem.*

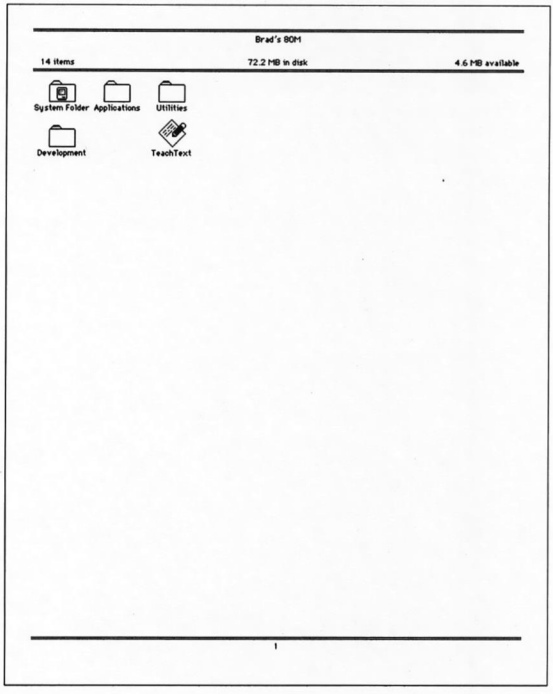
Note: *If you are connecting a printer to your Macintosh in some way besides the standard two serial ports (e.g. the Communications Toolbox, etc.), please consult Chapter 5.*

16. Close the Chooser by clicking on the close box in the upper left corner. Your printer is now configured to print with the PowerPrint driver. The next section will describe how to do a test print to verify that everything is operating correctly.

Performing a Test Print

Begin in the Finder with a window of your hard disk or a folder open. If you are in an application, quit the program and go to the Finder (the desktop showing you the icons of your startup disk and files).

Note: *All of the features in the dialog boxes that you will see in the following steps are fully explained in Chapter 4. Please turn to that chapter if an item is not clear to you. In many dialogs a short explanation is also available by clicking on the Help button (or by activating balloon help if you are running System 7).*



An example of a test print.

Dialogs

Chooser 32
Background Printing 33
Cartridges 34
Page Setup Dialog 42
Paper 42
Reduce or Enlarge 43
Orientation 43
Photocopy Reduction 44
No Gaps Between Pages 45
Fractional Widths 46
Page Setup Options 46
Settings 48
Paper 49
Working with Custom Paper Sizes 54
Print Dialog 56
Print Mode 56
Graphics 57
Draft 60
Fast Text 62
Color 62
Quality 63
Pages 63
Copies 64
Feed 64
Print Options 64
Print Order 65
Head Scan 65
Cover Page 66
Resolution Enhancement 66
Bins and Trays 67
Working with Trays 69

modem port) which you have the printer cable connected to.

Note: *If you are connecting your printer cable to the printer port then AppleTalk must be set to inactive.*

Note: *If you are connecting to the modem port of a PowerBook with an internal modem check that the Portable Control Panel (accessible from the Apple menu) has the port set to external modem.*

If you require more information on using the Chooser, consult your Apple Reference manuals.

Background Printing

Available in: All drivers

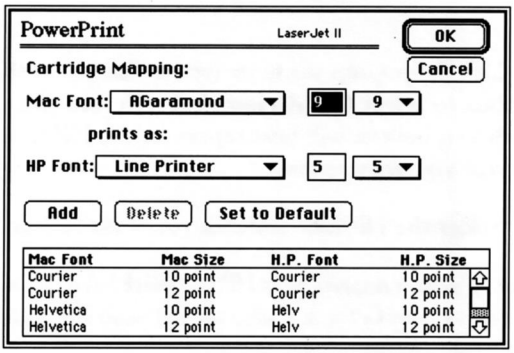
These radio buttons allow you to turn SpoolMaster, the background printing software, on and off. When SpoolMaster is on, you will be able to continue to use your computer while your printer is printing. When SpoolMaster is off, you will not be able to use your Macintosh while it is printing.

Note: *If the Background Printing selection is not available (greyed-out) then SpoolMaster has either not been installed, or was not loaded when you started up your computer. Check the installation instructions in Chapter 3 to ensure that you have correctly installed SpoolMaster.*

Refer to Chapter 5 for a complete description of SpoolMaster.

font(s) available with your printer. These mappings determine the font to be used on the printer when printing in draft mode. The default mappings have been set to provide you with the best Macintosh to HP font mappings for a few of the most common fonts and sizes.

Note: *HP's fonts from the MS-DOS world do not have exactly matching Macintosh fonts. Even though certain fonts have similar names, such as Helv and Helvetica, or TmsRmn and Times, they are different fonts and have different character shapes, widths, and sizes. While PowerPrint will do its best, the Macintosh philosophy of What-You-See-Is-What-You-Get (WYSIWYG) is not fully supported when printing with HP cartridge or internal fonts.*



The Cartridge Mapping dialog which is available with the DeskJet and LaserJet drivers.

Note: *This dialog box may be different from yours. The default font list shown here is for most of the LaserJet drivers. If you are using the DeskJet, DeskJet 500, LaserJet III, or LaserJet 4 driver, you will have a different default mapping list.*

Mac Font

Two pop-up menus list the Macintosh screen fonts and sizes that you can map to an HP internal or cartridge font.

font TmsRmn 12 to see which Macintosh font will provide you with the best spacing.

Delete

This button deletes a selected mapping from the driver.

To delete a font mapping:

1. **Select the font mapping you want to delete by clicking on it.**

Note: *If you want to select more than one cartridge mapping at a time, drag the cursor across all the font name and sizes that you want. To select multiple mappings that are not contiguous, hold the shift key down while you click on each mapping that you want.*

2. **Click the Delete button.**

3. **To save your changes, click the OK button.**

Set to Default

This button resets the cartridge mapping list to GDT's original settings.

To return the cartridge mappings to their original settings:

1. **Click the Set to Default button.**

2. **To save your changes, click the OK button.**

Recommendations for font mappings

To obtain the best spacing, choose a Macintosh screen font which you feel best matches the HP font's character widths. Monospaced fonts such as the HP fonts Courier, Prestige Elite, Letter Gothic, and Line Printer will map best to a monospaced Macintosh font such as

Default mappings

These tables list the default font mappings between Macintosh screen fonts and Canon and HP printer fonts.

Laser Beam Printers

	Mac Font	Canon Font
Internal bitmap	Courier 9	Courier 9
	Courier 12	Courier 12
Internal scalable	Helvetica	Swiss
(any size from 3 to 255-points)	Symbol	Symbol
	Times	Dutch
SC-1 cartridge scalable	Avant Garde	AvantGarde
(any size from 3 to 255-points)	Bookman	Bookman
	Helvetica Narrow	Swiss-Narrow
	New Century Schoolbook	CenturySchlbk
	Palatino	ZapfCalligraphic
	Zapf Chancery	ZapfChancery
	Zapf Dingbats	ZapfDingbats

DeskJet

Mac Font	HP Font
Helvetica 10	Helv 8
Helvetica 12	Helv 10
Helvetica 14	Helv 12
Times 10	TmsRmn 8
Times 12	TmsRmn 10
Times 14	TmsRmn 12

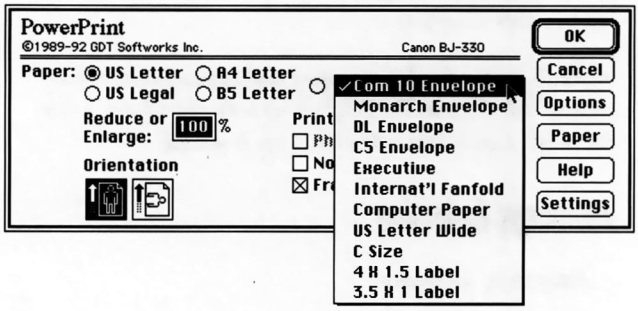
DeskJet 500/DeskJet Portable

Same as the DeskJet (above) with the addition of the following:

Courier 9	Courier 8
Courier 10	Courier 10
Courier 12	Courier 12
Courier 24	Courier 24
Monaco 9	Letter Gothic 9
Monaco 18	Letter Gothic 18

LaserJet 4

Mac Font	HP Font
Courier 10	Courier 10
Courier 12	Courier 12
Helvetica 9	Arial 9
Helvetica 10	Arial 10
Helvetica 12	Arial 12
Helvetica 14	Arial 14
Helvetica 18	Arial 18
Helvetica 24	Arial 24
Helvetica 36	Arial 36
Helvetica 48	Arial 48
Helvetica 72	Arial 72
Monaco 9	Letter Gothic 9
Monaco 12	Letter Gothic 12
Symbol 9	Symbol 9
Symbol 10	Symbol 10
Symbol 12	Symbol 12
Symbol 14	Symbol 14
Symbol 18	Symbol 18
Symbol 24	Symbol 24
Symbol 36	Symbol 36
Symbol 48	Symbol 48
Symbol 72	Symbol 72
Times 9	Times New 9
Times 10	Times New 10
Times 12	Times New 12
Times 14	Times New 14
Times 18	Times New 18
Times 24	Times New 24
Times 36	Times New 36
Times 48	Times New 48
Times 72	Times New 72



Selecting a paper size from the Paper pop-up menu.

Reduce or Enlarge

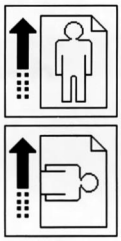
Available in: All drivers

Enter the percentage of reduction or enlargement at which you want the document to print. PowerPrint will let you enter a value from twenty to four hundred percent, in one percent increments. Because the reduction or enlargement applies to both the horizontal and the vertical axis, a value of fifty percent will reduce your image to one quarter the size of the original; a value of two hundred percent will enlarge your image to four times the size of the original. (See also Photocopy Reduction)

Note: *Reduction and enlargement is not supported in Draft mode (see the Print dialog section of this chapter). If you enter a Reduce or Enlarge factor other than 100%, the Draft setting in the Print dialog box will be dimmed.*

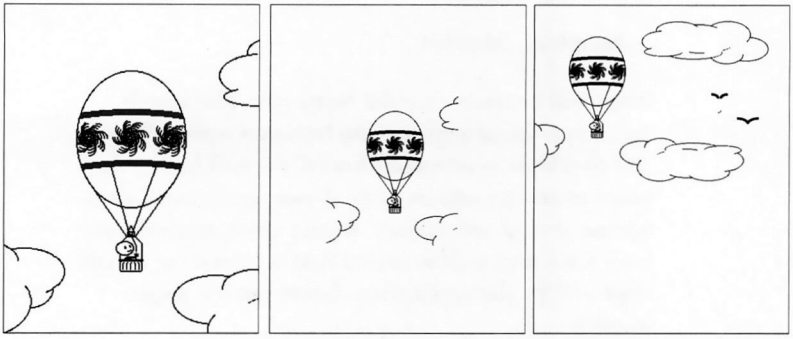
Orientation

Available in: All drivers



'Tall' (man in upright position icon) prints the document in the upright (portrait) format. 'Wide' prints the document in the sideways (landscape) format. All documents can be printed in landscape format when

The effect of Photocopy Reduction on a large graphic document:



Normal (100%)

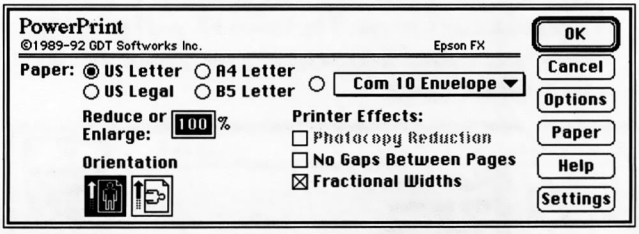
50% reduction with Photocopy Reduction.

50% reduction without Photocopy Reduction.

No Gaps Between Pages

Available in: Canon BJ-10ex, Canon BJ-130, Canon BJ-330, ThinkJet, Epson FX, Epson LQ, Toshiba P, NEC Pinwriter

Turning on this checkbox allows you to eliminate the gap between pages. If this option is turned on, you will be able to print to the top and bottom edges of your page. If this option is left off, there will be a top and bottom margin of about half an inch. This option should only be turned on if you are using continuous tractor fed paper.



The Epson FX driver's Page Setup dialog.

Flip Horizontal

Available in: All drivers

This reverses the page horizontally left to right (mirror-image).

Flip Vertical

Available in: All drivers

This reverses the page vertically top to bottom (upside-down).

Invert Image

Available in: All drivers

This reverses the printed image by printing white on black instead of black on white (negative). This option is useful for saving ink or the ribbon in your printer if the image you are printing is mostly black.

Precision Bitmap Alignment

Available in: Canon LBP, DeskJet, DeskJet 500, DeskJet Portable, ThinkJet, LaserJet, LaserJet Plus, LaserJet II, LaserJet IIP, LaserJet III, LaserJet 4

When selected, Precision Bitmap Alignment reduces the printed image by four percent. This feature improves the quality of the appearance for bitmap fonts and images.

Save

Clicking on this button will save the current Page Setup settings as the new default settings. All new documents will have these defaults selected as their initial Page Setup settings. The settings which you set using this button are saved as the current User Default selection.

User Default

Clicking on this button restores the last default settings that were saved using the Save button.

Factory Default

Clicking on the Factory Default button will result in the default settings being returned to the original settings that your PowerPrint driver was shipped with.

Paper

Available in: Canon BJ-10ex, Canon BJ-130, Canon BJ-330, DeskJet, DeskJet 500, DeskJet Portable, ThinkJet, Epson FX, Epson LQ, Toshiba P, NEC Pinwriter

PowerPrint's Paper dialog allows you to create non-standard sizes of paper and allows you to select which paper sizes are available from the Page Setup dialog in the paper pop-up menu.

After clicking on a paper name the edit boxes in the lower half of the window will become active to allow you to modify the paper name, paper dimensions, and units of measurement. Paper sizes that were predefined in the driver by GDT can't be edited.

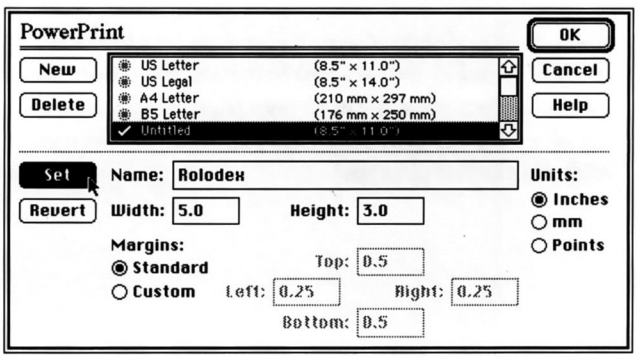
The order that the paper names appear in the paper popup menu can be changed by selecting a paper name and dragging it to a new location below the dotted line in the Paper List. You can change the paper sizes that are available from the Paper radio button selections by dragging a paper name to a location above the dotted line.

New

Clicking on this button allows you to add a new custom paper size to the driver. After you click on the New button the edit boxes in the lower half of the window will become active to allow you to modify the paper name, paper dimensions, and unit of measurement.

Delete

This button deletes the currently selected user-defined custom paper size from the driver. Paper sizes that were predefined in the driver by GDT can not be deleted.



Creating a new paper size.

Units

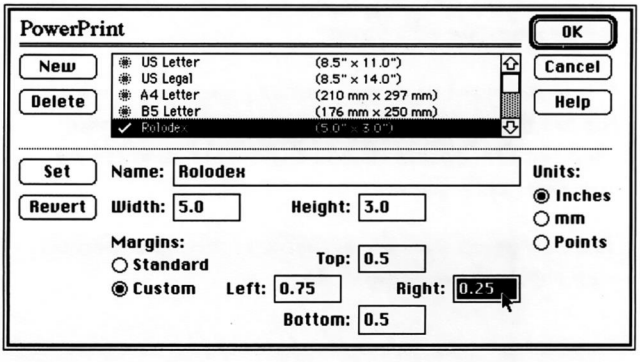
Click on these radio buttons to automatically convert between using inches, millimeters, or printer dots as measurements.

Margins

This radio button allows you to select between using the standard margins for the paper size, or defining custom margins. These margins define the printable area for your printer and prevent the application from placing text or images where your printer is physically unable to print. Normally, you will not need to alter these margin settings as they are preset correctly for most printers.

Note: *These margin settings do not tell the application where to place printing on the page. Use the margin settings in the application to define where your document will be placed on the page.*

Selecting Standard will use the margins which are predefined in the US Letter paper size of the driver. Selecting Custom causes the edit boxes to the right to become active, allowing you to change the settings for the top, bottom, left, and right margins.



Setting the Margins for the new paper size.

To modify a custom paper size:

1. Click on the paper size you want to modify. Paper sizes that were predefined in the driver by GDT can not be modified.

2. Change the name by typing in a new name in the Name edit box in the lower half of the window. Change the measurements by modifying the width or height values or by changing the unit of measurement.

3. If you need to change the margins for the page, set the Margins selection to Custom (if it isn't already set). Enter the new margin values for the top, left, right, and bottom margins in the appropriate edit boxes.

4. Click on the OK or Set buttons to save your changes or click on the Cancel or Revert button if you want to undo your changes.

To delete a custom paper size:

1. Click on the paper size you want to delete. Paper sizes that were predefined in the driver by GDT can not be deleted.

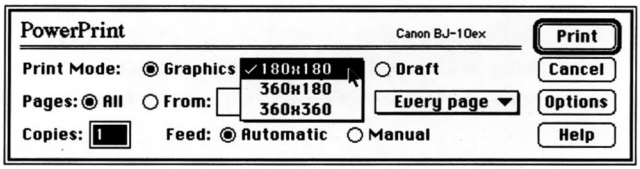
2. Click on the Delete button.

3. Click on the OK button when you are finished or the Cancel button if you want to undo your deletions.

Graphics

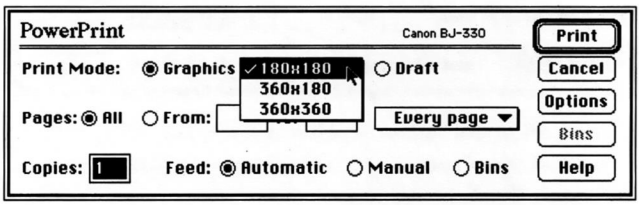
This mode is used for printing text (both outline and bitmapped fonts) as well as graphics at WYSIWYG accuracy. The Graphics selection also sets the resolution level on the pop-up menu. The possible resolution selections vary from printer to printer. For best printing results select the highest resolution. For faster printing but lower quality, select the lowest resolution.

Canon BJ-10ex and Canon BJ-130



The Canon BJ-10ex and Canon BJ-130 drivers support resolutions of 180x180, 360x180, and 360x360 dpi.

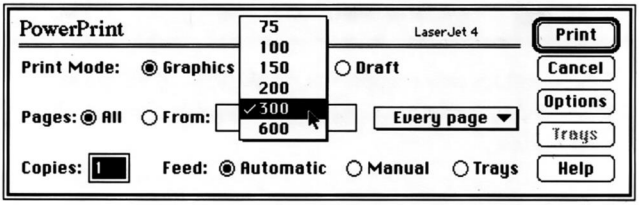
Canon BJ-330



The Canon BJ-330 driver supports resolutions of 180x180, 360x180, and 360x360 dpi. Paper bin control is accessible through the Bins button.

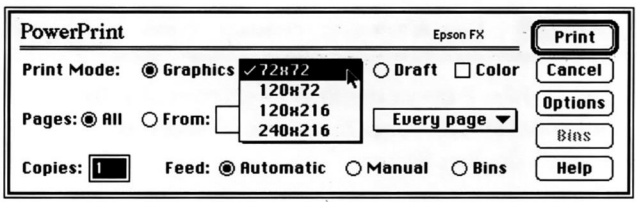
and 300 dpi. Paper tray control for the LaserJet II, LaserJet IIP, and LaserJet III drivers is accessible through a Trays button.

LaserJet 4



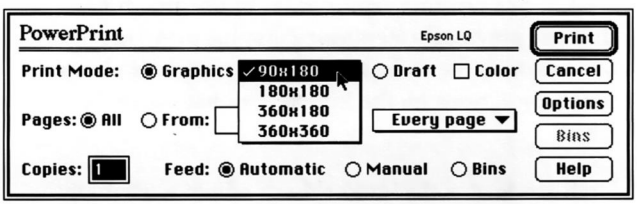
The LaserJet 4 driver supports resolutions of 75, 100, 150, 300, and 600 dpi. Paper tray control is accessible through the Trays button.

Epson FX



The Epson FX driver supports resolutions of 72x72, 120x72, 120x216, and 240x216 dpi. Paper bin control is accessible through the Bins button.

Epson LQ, NEC Pinwriter



The Epson LQ and NEC Pinwriter drivers support resolutions of 90x180, 180x180, 360x180, and 360x360 dpi. Paper bin control is accessible through the Bins button.

Draft mode simply sends an ASCII number to the printer telling it which predefined bitmap character to print from the fonts built into the printer.

Note: *With the exception of NEC and Toshiba printers when using their own screen fonts and Canon Laser Beam Printers, fonts in the printer do not have matching Macintosh screen fonts so inter-word spacing will be erratic and you will not be able to get WYSIWYG when printing in draft mode.*

If you are using a Canon BubbleJet printer, you should use Courier 10 or 12-point or Monaco 9 or 12-point for best results.

Canon Laser Beam Printers have outline fonts built-in that exactly match Macintosh screen fonts, so text spacing is preserved. If you have the SC-1 cartridge, you can also use any of the fonts in that cartridge for excellent draft mode printing. Please consult the Default mappings section earlier in this chapter for a list of the best screen fonts to use with the printer's internal and cartridge fonts.

If you are using a DeskJet or LaserJet series printer, please consult the Default mappings section earlier in this chapter for a list of the best screen fonts to use with the printer's internal and cartridge fonts.

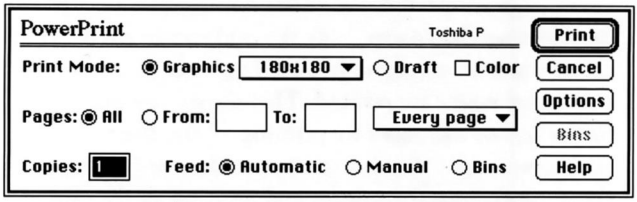
For best results when printing in draft mode for the NEC and Toshiba printers, you should use the NEC or Toshiba fonts.

All other printers will probably achieve the best results by using Courier 9, 10, or 12-point.

Note: *Some applications, such as the Finder, are not able to print multiple copies while printing in draft mode.*

Note: *Page setup options and scaling are not supported while printing in draft mode. Also, landscape orientation is not supported by most printers when printing in draft mode.*

this option is not selected black and white printing will be used, even if a color ribbon is installed.



Note: *Leave the Color setting unchecked if your printer does not have a color ribbon installed or does not support color printing.*

Quality

Available in: DeskJet, DeskJet 500, DeskJet Portable

The quality radio buttons allow you to select between the highest printing quality or faster printing times.

Best

This setting selects the maximum ink density and highest quality printing.

Fast

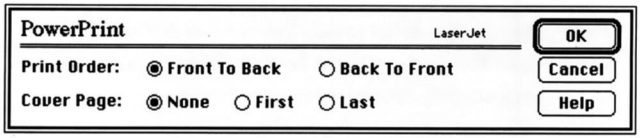
This selects a lower ink density, which increases the printer's speed, but decreases the print quality. You should select Faster when printing proofs of documents, to conserve ink and to obtain faster output.

Pages

Available in: All drivers

This control allows you to print all pages of a document or to select a range of pages by entering the starting and ending page numbers in the From and To edit boxes.

have a control for the movement of the print head, if applicable.



The Print Options dialog for the LaserJet driver.

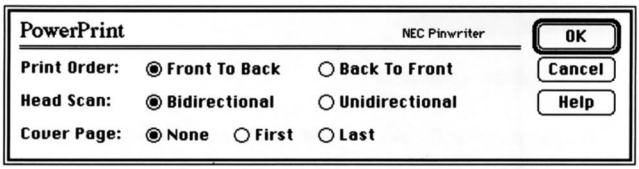
Print Order

Available in: All drivers

This radio button is used for printing multiple page documents. Select front to back if you want the printer to print page one first or select back to front if you want the first page to print last.

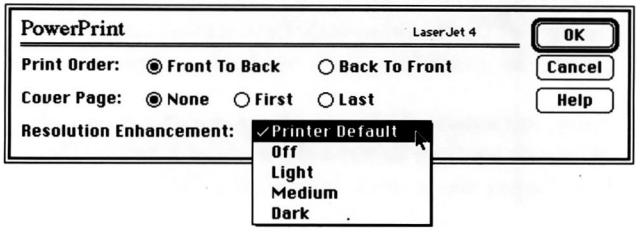
Head Scan

Available in: Epson FX, Epson LQ, Toshiba P, NEC Pinwriter



The Print Options dialog as it appears with the Epson FX, Epson LQ, Toshiba P, and NEC Pinwriter drivers.

The movement of the printhead is controlled by this radio button while it is printing. Selecting Unidirectional will result in the printer printing in one direction (left to right). If you select Bidirectional printing the printer will print in both directions (left to right and right to left). Setting this to bidirectional will result in faster printing, but it will be less accurate when printing in graphics mode. Because results vary from printer to printer with bidirectional printing, we recommend setting the head scan to bidirectional for most printing. If you notice a deterioration in print quality or require a more accurate output, use unidirectional printing.

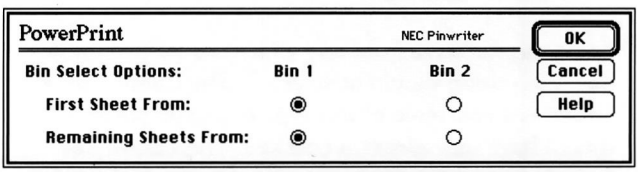


The Print Options dialog as it appears with the LaserJet 4 driver.

Bins and Trays

Available in: Canon BJ-330, Canon LBP, Epson FX, Epson LQ, NEC Pinwriter, Toshiba P, LaserJet II, LaserJet IIP, LaserJet III, LaserJet 4

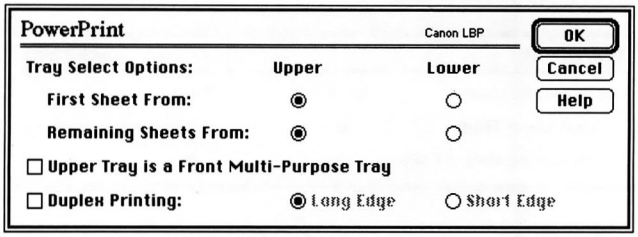
If you are using a printer which supports the use of bins or trays, click on the Bins or Trays button to access a dialog box which allows you to specify where your printer will get its paper from. This dialog will allow you to set the first page to feed from one tray (which, for example, can hold your letterhead) while the rest of the sheets feed from another tray. Some printers which have support for double-sided printing will have a duplex printing option. The Canon LBP driver has a selection for distinguishing the type of paper tray on some Canon LBP printers. The LaserJet III driver also has a Job Offset selection for LaserJet models that support this feature.



The Trays dialog as it appears with the NEC Pinwriter, Epson LQ, Epson FX, and Canon BJ-330 drivers.

Tray/Bin Select Options

These radio buttons specify where the first sheet will feed from, as well as all remaining sheets. To use the



The Trays dialog for the Canon LBP driver.

Job Offset

Available in: LaserJet III

If your printer supports offset printing, this option will let you turn this feature on or off. Offset printing is available on some of HP's newer printers. This feature does not affect the printed output but instead 'staggers' each printed document so that it is easier to distinguish the starting and end pages of your document when printing in a network environment. For a more detailed description of job offset, refer to your printer manual.

Working with Trays

To feed the first page from tray (or bin) one and the rest of the sheets from the tray two:

1. From the Print dialog, set the Feed selection to Trays or Bins (depending on your driver).

2. Click on the Trays button to access the Trays dialog which allows you to set the tray selection options.

3. Set the First Sheet From radio button to Tray 1

4. Set the Remaining Sheets From radio button to Tray 2

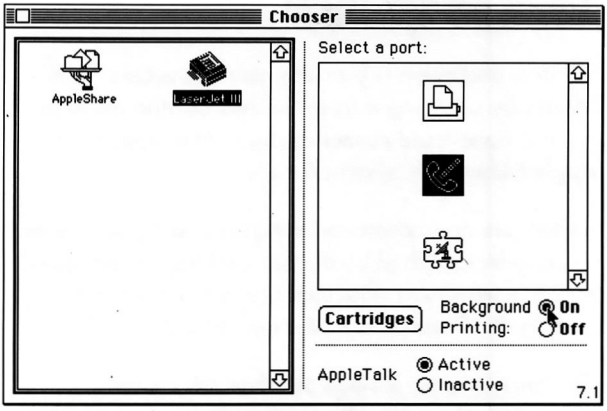
SpoolMaster

Introduction 72
Features 73
Using SpoolMaster 74
Activating SpoolMaster 74
Printing with SpoolMaster 75
Working with SpoolMaster 76
The SpoolMaster window 76
Cancelling a document 77
Removing a document 78
Changing the printing order 78
Stop and resume printing 80
Setting the preferences 81

Features

SpoolMaster provides the following features to give you more control and flexibility over the printing of your documents:

- ✓ The use of your Macintosh is quickly returned to you when SpoolMaster is activated.
- ✓ SpoolMaster will automatically queue numerous print jobs for you, even from different applications.
- ✓ Print jobs which are listed in the queue can be rearranged to change the order in which they print.
- ✓ Document information is available which displays the name, time, date, and progress for each print job.
- ✓ Preferences are user-definable.
- ✓ Balloon help is available when using System 7.



Turning on background printing in the Chooser will activate SpoolMaster.

Note: *Your Chooser window will probably show a different selection of drivers. Make sure you choose the appropriate driver for your printer. The puzzle icon will only be displayed if the Communications Toolbox is installed or if you are running System 7.*

4. Close the Chooser by clicking on the close box in the upper left corner. Your PowerPrint driver is now ready to use SpoolMaster's background printing capabilities.

Printing with SpoolMaster

Once SpoolMaster has been activated you can continue to print as you normally would from any program. If you try to print other documents, even from different programs, SpoolMaster will save the document to a spool file and add it to the queue of documents to be printed. SpoolMaster will continue to print all the documents which are listed in the queue until they have been completed.

Note: *SpoolMaster makes a copy of the printer driver the first time it is used. Because of this, it may take longer for printing to begin the first time you print with a new driver when SpoolMaster is active. However, subsequent printing will not have to create this copy of the driver, so printing will begin immediately after the spool file is created.*

displays, in order from top to bottom, the print jobs which have been queued to be printed. The bottom of the window shows a status area that normally displays the printer status for the document which is currently printing.

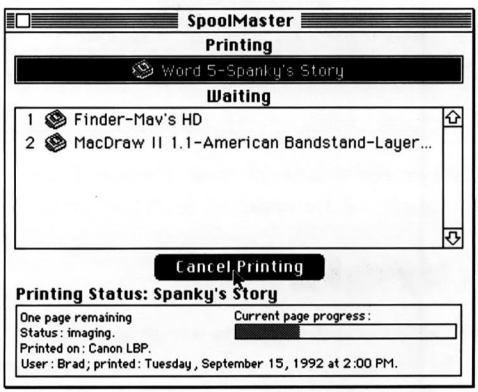
Clicking on any of the documents listed in the SpoolMaster window will change the status area to display the information for that particular document.

Cancelling a document

SpoolMaster allows you to cancel the printing of a document which it is currently printing. Perform the following steps to cancel the printing of a document:

4. **Select SpoolMaster from under the Application menu in the top right-hand corner of the screen (under the Apple Menu with System 6.0.x). The SpoolMaster window will be displayed and will have the currently printing document displayed and selected in the Printing area at the top of the window.**

5. **Click on the Cancel Printing button. SpoolMaster will abort the printing of the current document.**

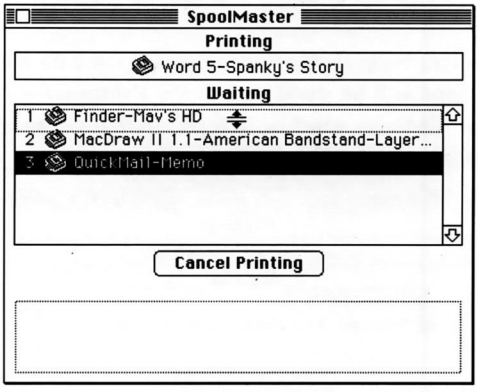


Cancelling the currently printing document.

This feature is useful if you need to move one document ahead of others already in the queue to have it print sooner. Perform the following steps to change the printing order:

6. Select SpoolMaster from under the Application menu in the top right-hand corner of the screen (under the Apple Menu with System 6.0.x). The SpoolMaster window will be displayed. The currently printing document will be shown in the Printing area at the top of the window and will be selected.

7. Select the document you wish to move in the Waiting area of the SpoolMaster Window and drag it to its new position in the queue.



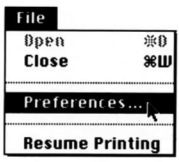
Moving the document "Memo" to the top of the print queue so that it will be printed next.

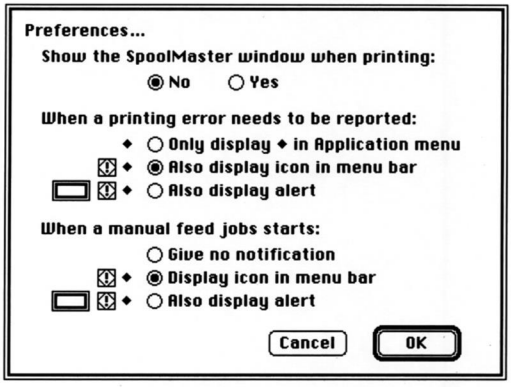
8. Release the mouse button. The document will be shown in its new printing order and the other documents in the queue will move appropriately to make room for it.

You can change the printing order as much as you like by repeating steps 2 and 3 above until the desired order is achieved.

Setting the preferences

The Preferences window allows you to control the manner in which SpoolMaster acts and brings things to your attention. You can access these options by selecting the Preferences option from under the File menu.





The Preferences window.

Once you have the preferences set the way you like them, click on the OK button and they will be saved. Clicking on the Cancel button will ignore any changes you have made.

Other Connections

Networks and Networking 84
NetSerial Connection 84
PowerPrint and remote printing 85
Switch-boxes 89
Other Macintosh connections 89
  Communications Toolbox 90
Contact information 91

1. Connect your printer to the NetSerial box and connect the NetSerial to the network.

2. Go to the Shiva Config window which is available from the Control Panel selection under the Apple Menu.

3. Verify that the NetSerial is selected and set the emulation port to either the Printer or the Modem port. We recommend that you select the printer port as this will allow you to use your modem port connection for another device, such as a modem.

4. We suggest selecting a sleep time of at least two minutes.

5. Go to the Chooser and verify that the PowerPrint driver is set up to print through the same port that you set the NetSerial's emulation to in Step #3 (Printer port recommended).

6. Select the NetSerial in the Chooser and close the Chooser window.

Note: *When using the NetSerial, if someone else on the network is printing when you print a dialog box will appear that will say that your computer is unable to connect to the NetSerial. You will need to cancel your print job from this dialog and try to print again later when the NetSerial is available (not in use).*

Note: *Each copy of PowerPrint is licensed for the use of up to twenty-five (25) copies per one (1) printer. If you exceed either of these limits, you will require an additional copy of PowerPrint.*

PowerPrint and remote printing

PowerPrint's background printing software, SpoolMaster, makes it possible to access a printer remotely over an AppleTalk network. The remote printer must be connected to a "host" Macintosh which is running

3. Select Control Panels from the Apple menu and open the Sharing Setup icon. The Sharing Setup window will be displayed.

4. Click on the Start button in the section of the window which is labelled File Sharing.

5. Close the Sharing Setup window and the Control Panels folder.

6. Select the icon for the startup hard disk drive by clicking on it once.

7. Choose Sharing from under the File menu and click the box labelled "Share this item and its contents" so that it contains a checkmark.

8. Close the Sharing window. The entire contents of the hard drive for the host computer is now available to other Macintosh computers on the network.

Perform these steps on each of the client computers:

1. Install the appropriate PowerPrint driver for the host's printer as per the instructions in chapter 3.

2. Select the Chooser under the Apple menu. The Chooser window will be displayed.

3. Turn on AppleTalk. This can be done by clicking on the AppleTalk Active button.

Note: *The following four steps (4-7) connect the client computer to the host so that print jobs can be sent to the host to be printed. Please refer to your System 7 Reference Manual if you require more detailed instructions on using your Macintosh on a Network.*

4. Click on the AppleShare icon in the Chooser window.

Switch-boxes

A switch-box makes it possible to share your printer with another computer. When sharing a printer with another Macintosh make certain that the communication settings for both computers is the same.

It may also be possible to share your printer with an IBM-compatible computer, although this may require some special considerations for the set up of both the printer and the computers.

If you are using an electronic switch-box such as the ESI-2000 series or the Buffalo SL series, you must make certain that the communication settings for each port matches the settings for the connected computer or printer.

If you require more detailed information regarding the set up or purchase of a manual or electronic switch-box please contact your local dealer or computer consultant.

Note: *Each copy of PowerPrint is licensed for the use of up to twenty-five (25) copies per one (1) printer. If you exceed either of these limits, you will require an additional copy of PowerPrint.*

Other Macintosh connections

The Macintosh was designed with two serial ports, the printer and the modem port. A number of options have been made available to help Macintosh users who require more than the standard two serial ports on their machine. PowerPrint has been designed to easily take advantage of some of these new ways of expanding your Macintosh's serial ports.

Contact information

This information is provided for your convenience only. While this information was accurate at press time, GDT Softworks does not accept responsibility for its current accuracy.

APDA: 800-282-2732 (US), 408-562-3910

Buffalo Products: 800-345-2356 (US), 503-585-3414

Extended Systems: 800-235-7576 (US), 208-322-7163

GDT Softworks (sales office):604-291-9121 (Can)

Shiva Corporation: 800-458-3550 (US), 617-252-6300

Creative Solutions: 301-984-0262 (US)

Appendix

Notes for PowerBook Users 94
Installing the drivers 94
Guidelines 95
Paper sizes 96
A Note About Fonts 97
Bitmap fonts 97
Outline Fonts 98
Toshiba & NEC Screen Fonts 98
Printer Compatibility List 100
Troubleshooting notes 109
General 109
Application notes 114
General notes 114
Specific notes 114
Getting Technical Support 119

These three drivers can be installed easily by selecting "Popular Printers Package" during the installation process. If you require more information on how to install these drivers, please refer to Chapter 3.

Guidelines

When connecting your computer to any printer be sure to adhere to the following guidelines:

- **Always make sure that the power to the printer and your computer is off before connecting the printer cable. Failing to do this could result in damage occurring to some sensitive components within your computer equipment.**

- **Be sure to select the correct driver in the Chooser for the printer you are connecting.**

- **Ensure that the port selected in the Chooser is the same port that you have connected the printer cable to. If you are connecting the printer cable to the printer port, AppleTalk must be inactive. If you are connecting to the modem port of a PowerBook with an internal modem check that the Portable Control Panel (accessible from the Apple menu) has the port set to external modem.**

Note: *Additionally, when using PowerPrint with a PowerBook Duo which is not docked, the modem port must be selected and AppleTalk must be set to "inactive".*

- **If you are printing a document which was created with a different type of printer selected in the Chooser the page setup information will probably have to be adjusted for the document to print correctly. To do this, simply select Page Setup from under the File menu before printing and click on the OK button from the resulting dialog.**

A Note About Fonts

This section will describe some of the differences between the different types of fonts which are available on the Macintosh.

In the Macintosh environment, a font is considered to be a complete set of characters in one typeface design, one size, and one style. However, the fonts on the Macintosh take two distinct forms; bitmap and outline fonts. These font formats are used to determine the shape of characters when printing in graphic mode.

When printing in draft mode, the fonts which are built into the printer are used. This is discussed more fully in the Draft Print Mode section of Chapter 4. The draft mode screen fonts which PowerPrint includes for the Toshiba and NEC printers are described briefly at the end of this chapter.

Bitmap fonts

Bitmapped fonts are represented by a block of data (bits) which creates a picture of each individual character. When your Macintosh needs to display a character, it copies the necessary picture to the appropriate location on the screen. If a bitmapped font is not available in the required size, the Macintosh will attempt to scale the font based on the data from another size that is available. This scaling process is not very accurate, however, and the result is usually output which appears jagged.

Bitmapped fonts are usually created to be used at 72 x 72 dpi, the resolution of the Macintosh screen. If they are used on a device which does not share the same resolution, the computer searches the System file for other sizes that it may be able to scale to the correct size. The computer is usually forced to approximate

The PowerPrint screen font for the NEC driver is NEC Custom. The Toshiba driver uses three screen fonts; ToshCourier, ToshDraft, and ToshElite. For the best results when printing in draft mode with the Toshiba or NEC drivers, always use the screen fonts which are provided by PowerPrint.

Manufacturer	Model	Driver	Note
BDT Products	ErgoPrint 610 II	LaserJet II	
BGL Technology	Mark I	LaserJet II	
BGL Technology	Mark I Plus	LaserJet II	
BGL Technology	Mark I T	LaserJet II	
BGL Technology	Mark II	LaserJet II	
BGL Technology	Mark III	LaserJet II	
BGL Technology	Mark IV	LaserJet II	
Blaser Industries	Blaserstar	LaserJet Plus	
Blaser Industries	Blaserstar 2	LaserJet II	
BottomLine Technologies	BT 5015	LaserJet II	
BottomLine Technologies	BT 5106	LaserJet II	
Brother	HJ-100i	Canon BJ-10ex	
Brother	HL-4	LaserJet IIP	
Brother	HL-4V	LaserJet III	
Brother	HL-8	LaserJet Plus	
Brother	HL-8e	LaserJet II	
Brother	HL-8V	LaserJet III	
Brother	M-1109	Epson FX	
Brother	M-1309	Epson FX	
Brother	M-1324	Epson LQ	
Brother	M-1709	Epson FX	
Brother	M-1724L	Epson LQ	
Brother	M-1809	Epson FX	
Brother	M-1824L	Epson LQ	
Brother	M-1909	Epson FX	
Brother	M-1924L	Epson LQ	
Brother	M-2518	Epson FX	
Brother	M-2524L	Epson LQ	
Brother	M-4018	Epson FX	
Brother	M-4309	Epson FX	
Brother	Twinriter 5	Epson FX	
Brother	Twinriter 6	Epson FX	
Brother	XL-1500	Epson LQ	
Brother	XL-500	Epson FX	
Bull	BPX-508	LaserJet II	
Bull	CompuPrint 4/20	Epson FX	
Bull	CompuPrint 4/21	Epson FX	
Bull	CompuPrint 4/22	Epson FX	
Bull	CompuPrint 4/23	Epson FX	
Bull	CompuPrint 4/24	Epson LQ	
Bull	CompuPrint 4/40	Epson FX	
Bull	CompuPrint 4/41	Epson FX	
Bull	CompuPrint 4/43	Epson FX	
Bull	CompuPrint 4/54	Epson LQ	
Bull	CompuPrint 4/66	Epson FX	
Bull	CompuPrint 4/68	Epson FX	
Bull	CompuPrint 970	Epson FX	
Bull	LP-230	LaserJet IIP	
Bull	PageMaster 1021	LaserJet IIP	
C. Itoh/C-Tech	9500	Epson FX	
C. Itoh/C-Tech	9515	Epson FX	
C. Itoh/C-Tech	9700	Toshiba P	
C. Itoh/C-Tech	9715	Epson LQ	
C. Itoh/C-Tech	9815	Toshiba P	
C. Itoh/C-Tech	C-240	Epson FX	
C. Itoh/C-Tech	C-245	Epson FX	
C. Itoh/C-Tech	C-310	Epson FX	
C. Itoh/C-Tech	C-315	Epson FX	
C. Itoh/C-Tech	C-510	Epson LQ	
C. Itoh/C-Tech	C-515	Epson LQ	
C. Itoh/C-Tech	C-610	Epson LQ	
C. Itoh/C-Tech	C-610 +	Epson LQ	
C. Itoh/C-Tech	C-610C +	Epson LQ	
C. Itoh/C-Tech	C-645	Epson FX	
C. Itoh/C-Tech	C-715 A	Epson LQ	
C. Itoh/C-Tech	C-815 Supra	Toshiba P	
C. Itoh/C-Tech	CI-4	LaserJet IIP	
C. Itoh/C-Tech	CI-8	LaserJet III	
C. Itoh/C-Tech	Jet-Setter	LaserJet Plus	
C. Itoh/C-Tech	ProWriter C-240	Epson FX	
C. Itoh/C-Tech	ProWriter C-245	Epson FX	
C. Itoh/C-Tech	ProWriter C-310 CXP	Epson FX	
CAF Computer Corp	CAF Laser	LaserJet II	
CAF Computer Corp	Syslaser	LaserJet II	
Calcomp	5902	Epson FX	
Canon	BJ-10e	Canon BJ-10ex	
Canon	BJ-10ex	Canon BJ-10ex	
Canon	BJ-130	Canon BJ-130	
Canon	BJ-130e	Canon BJ-330	
Canon	BJ-20	Canon BJ-10ex	
Canon	BJ-300	Canon BJ-330	
Canon	BJ-330	Canon BJ-330	
Canon	BJ-5	Canon BJ-10ex	
Canon	BJC-800	Epson LQ	
Canon	BJC-820	Epson LQ	
Canon	LBP-4	Canon LBP	
Canon	LBP-4 Plus	Canon LBP	
Canon	LBP-8III	Canon LBP	
Canon	LBP-8III Plus	Canon LBP	
Canon	LBP-8III R	Canon LBP	
Canon	LBP-8III T	Canon LBP	
Casio	LCS 240	Epson FX	
Casio	LCS 300	Epson FX	
CIE America	CI-4000	Epson FX	
CIE America	CI-5000	Epson FX	
CIE Terminals	Lips 10	LaserJet	
Citizen	120D	Epson FX	
Citizen	120D+	Epson FX	
Citizen	180D	Epson FX	
Citizen	200GX	Epson FX	
Citizen	200GX Fifteen	Epson FX	
Citizen	224	Epson LQ	
Citizen	5200	Epson FX	
Citizen	5800	Epson FX	
Citizen	GSX-130	Epson LQ	
Citizen	GSX-140	Epson LQ	
Citizen	GSX-140 Plus	Epson LQ	
Citizen	GSX-145	Epson LQ	
Citizen	HSP-500	Epson FX	
Citizen	HSP-550	Epson FX	
Citizen	MSP-40	Epson FX	
Citizen	MSP-55	Epson FX	
Citizen	Overture 110	Epson FX	
Citizen	PN-48	Epson LQ	
Citizen	ProDot 24	Epson LQ	
Citizen	ProDot 9	Epson FX	
Citizen	ProDot 9X	Epson FX	
Citizen	ProJet	DeskJet	

Manufacturer	Model	Driver	Note
Mannesmann Tally	MT 911 PS	LaserJet II	
Mannesmann Tally	MT 92C	DeskJet	2
Memorex	1208	Epson FX	
Memorex	1815-1	LaserJet Plus	
Memorex	1815-2	LaserJet Plus	
Memorex	2018	LaserJet Plus	
Memorex	2108-A	LaserJet Plus	
Memorex	2108-B	LaserJet Plus	
Memorex	2115	LaserJet Plus	
Miltope Business	Series 30L	LaserJet II	
Miltope Business	Series 30M	LaserJet II	
Minolta	SP101	LaserJet II	
Minolta	SP130	LaserJet Plus	
Mita Copystar	LP-2080	LaserJet II	
Mita Copystar	LP-2085	LaserJet III	
Mita Copystar	LP-3155	LaserJet II	
Mita Copystar	LP-3160	LaserJet III	
Mitek Systems	120T	LaserJet Plus	
Mitek Systems	125T	LaserJet Plus	
Mitek Systems	150T	LaserJet Plus	
Mitek Systems	2115	LaserJet Plus	
Mitek Systems	2125	LaserJet Plus	
Mitek Systems	2150	LaserJet Plus	
NCR	6417	Epson FX	
NCR	6421	Epson FX	
NCR	6424	Epson FX	
NCR	6435	LaserJet II	
NCR	6436-0201	LaserJet	
NCR	6436-0301	LaserJet II	
NCR	6436-0501	LaserJet II	
NEC	P20	NEC Pinwriter	
NEC	P2200	NEC Pinwriter	3
NEC	P2200XE	NEC Pinwriter	3
NEC	P30	NEC Pinwriter	
NEC	P3200	NEC Pinwriter	3
NEC	P3300	NEC Pinwriter	3
NEC	P5200	NEC Pinwriter	3
NEC	P5300	NEC Pinwriter	3
NEC	P5XL	NEC Pinwriter	3
NEC	P6	NEC Pinwriter	3
NEC	P60	NEC Pinwriter	
NEC	P6200	NEC Pinwriter	3
NEC	P6300	NEC Pinwriter	3
NEC	P7	NEC Pinwriter	3
NEC	P70	NEC Pinwriter	
NEC	P8300	NEC Pinwriter	3
NEC	P9	NEC Pinwriter	3
NEC	P90	NEC Pinwriter	
NEC	P9300	NEC Pinwriter	3
NEC	Silentwriter LC 260	LaserJet II	
NEC	Silentwriter LC 860	LaserJet II	
Newbury Data	OSP 3	Epson FX	
Nissho	NP 2405	Epson LQ	
Nissho	NP 2410	Epson LQ	
North Atlantic Ind.	Smartwriter 80	LaserJet Plus	
Octus	LaserPro 1510 MICR	LaserJet Plus	
Octus	LaserPro 90/22 Plus	LaserJet II	
Octus	LaserPro 90/24E	LaserJet II	
Office Automation	LaserPro 1510	LaserJet Plus	
Office Automation	LaserPro 2200	LaserJet Plus	
Office Automation	LaserPro 5215	LaserJet Plus	
Office Automation	LaserPro 810-R	LaserJet Plus	
Office Automation	LaserPro 90/22	LaserJet II	
Office Automation	LaserPro 90/8	LaserJet II	
Office Automation	LaserPro Exec	LaserJet II	
Office Automation	LaserPro Express Series II	LaserJet Plus	
Office Automation	LaserPro Gold Express	LaserJet Plus	
Office Automation	LaserPro Silver Express	LaserJet Plus	
Okidata	LaserLine 6	LaserJet II	
Okidata	MicroLine 184 Turbo	Epson FX	
Okidata	MicroLine 280	Epson FX	
Okidata	MicroLine 320	Epson FX	4
Okidata	MicroLine 320 Elite	Epson FX	4
Okidata	MicroLine 321	Epson FX	
Okidata	MicroLine 321 Elite	Epson FX	
Okidata	MicroLine 3410	Epson FX	
Okidata	MicroLine 380	Epson LQ	5
Okidata	MicroLine 390	Epson LQ	
Okidata	MicroLine 390 Elite	Epson LQ	
Okidata	MicroLine 390 FB	Epson LQ	
Okidata	MicroLine 390 Plus	Epson LQ	
Okidata	MicroLine 391	Epson LQ	
Okidata	MicroLine 391 Elite	Epson LQ	
Okidata	MicroLine 391 Plus	Epson LQ	
Okidata	MicroLine 393	Epson LQ	
Okidata	MicroLine 393 C	Epson LQ	
Okidata	MicroLine 393 C Elite	Epson LQ	
Okidata	MicroLine 393 Elite	Epson LQ	
Okidata	MicroLine 393 Plus	Epson LQ	
Okidata	OkiLaser 400	LaserJet II	
Okidata	OkiLaser 800	LaserJet II	
Okidata	OkiLaser 810	LaserJet III	
Okidata	OkiLaser 820	LaserJet II	
Okidata	OkiLaser 830	LaserJet II	
Okidata	OkiMate 240	Epson LQ	
Okidata	PaceMark 3410	Epson FX	
Olivetti	DM 100S	Epson FX	
Olivetti	DM 105S	Epson FX	
Olivetti	DM 124	Epson LQ	
Olivetti	DM 309E	Epson FX	
Olivetti	DM 600S	Epson LQ	
Olivetti	JP 150	DeskJet	
Olivetti	JP 350	DeskJet	
Olivetti	PG 108	LaserJet Plus	
Olivetti	PG 1230	LaserJet Plus	
Olivetti	PG 306	LaserJet II	
OTC	2132	Epson FX	
OTC	2142	Epson FX	
OTC	2162	Epson FX	
OTC	560 DL	Epson FX	
OTC	850 Printnet	Epson FX	
OTC	850 XL	Epson FX	
OTC	888 XL	Epson FX	
OTC	888 XL/Model 2	Epson FX	
OTC	889 XL	Epson FX	
OTC	889 XL/Model 2	Epson FX	
OTC	DuraLine	Epson FX	
OTC	LaserMatrix 1000 Model 1	LaserJet II	

Troubleshooting notes

The following section lists some common printing difficulties and their possible causes. If a solution is not given below, consult the Application notes following this section and read the Read Me! file on disk one of your PowerPrint disks for late breaking information. If that doesn't help, read the Getting technical support section at the end of this Appendix to find out how to contact us for assistance.

General

Applies to: *Canon LBP, DeskJet, DeskJet 500, LaserJet, LaserJet Plus, LaserJet II, LaserJet IIP, LaserJet III*

For best results with these drivers when using bitmapped fonts in the graphics print mode, Precision Bitmap Alignment should be ON in the Page Setup dialog box. When printing at 300 dpi, a bitmap four times the point size you require should be installed in your System file. For example, to print 12-point Geneva, you should have 48-point Geneva available in your System file or via a font utility such as Fifth Generation Systems' Suitcase II or Altsys' MasterJuggler. For best results when printing bitmapped fonts in graphics mode at 150 dpi, a two times point size should be available.

The PowerPrint driver does not show up in the Chooser.

- Make sure that you do not have more than one System folder on your hard disk drive.
- Try re-installing the driver as per the Installation instructions in chapter 3.

Draft mode prints, but graphics modes do not.

- Your System software should be System 6.0.7 or higher (look in About the Finder under the Apple menu). We recommend that you use System 7 or higher.
- Check that there is enough MultiFinder memory to print (close other applications or desk accessories, or increase the application's memory size in 100K increments through Get Info (under File menu in the Finder).

Only a portion of a document prints and it comes out highly magnified.

- Make sure that the printer is turned on and is On-line before you click the Print button.

A page is printed at the beginning or end of your document which lists your PowerPrint driver and version, the application you are printing from, and a date.

- The Cover page option in the Print Options dialog box is selected. Turn it off by setting this option to None.

Text appears jagged (blocky) when printing in graphics mode.

- Use an outline font (see A Note About Fonts).
- If you are not printing at the highest resolution available to the printer, select a higher resolution.

Printing is slow.

- Print at a lower resolution or in draft mode for faster printing.

- Enable Fractional Font Widths in your application (see Application notes or refer to the application's manual).

Bold spacing is erratic.

- Enable Fractional Font Widths in your application (see Application notes).

The right and/or bottom margins are too large.

- Turn off Precision Bitmap Alignment.

The Macintosh displays a System Error or crashes when switching between GDT drivers and other drivers in the Chooser.

- Use System 6.0.7 or higher.
- Reinstall the System software on your computer by running the Installer on your original System software disks.

The Macintosh generates Error ID=-108, Error ID=04, or Error ID=25 dialogs (out of computer RAM errors).

- Check that you have enough memory, decrease your RAM Cache in the Control Panel (Memory Control Panel under System 7), remove any unneeded inits, fonts, control panel devices, and desk accessories.
- If you are running Adobe Type Manager lower the font cache allocation.
- If you are using System 6.0.x, try turning on MultiFinder.
- Some applications may require a larger memory size under Multi-Finder. Increase the memory size in 100K increments through Get Info (under File menu in the Finder).

book. Duplex printing will work if you print one file at a time.

- Once PageMaker has printed, it ties up the driver and doesn't allow other applications to print until you quit PageMaker.
- Tracking of any sort does not work.
- Normally formats and prints its documents from Back to Front which is the reverse of most applications. To print your document back to front, leave the Print Order on Front to Back in the Print dialog. To print your document front to back, select Back to Front.
- Always turns off Precision Bitmap Alignment.
- Supports fractional font widths automatically.

Broderbund, PrintShop

- May not work with PowerPrint (Broderbund doesn't plan a fix).

CheckMark, MultiLedger

- Some drivers will require the forms to be resized. Import the default forms and do a Page Setup and then a Save as well.

ChipSoft, MacInTax

- Turn off PowerPrint's Fractional Widths in the Page Setup/Options dialog.

Claris, ClarisWorks

- Turn on Fraction Character Widths in the Preferences dialog (Edit menu).

Claris, FileMaker II

- Use MultiFinder.

Claris, FileMaker Pro

- Use MultiFinder or System 7.

Glossary

double click: (n.) Two clicks in quick succession, usually interpreted as a command to open the object that was double clicked. (v.) To position the pointer where you want an action to take place, and then press and release the mouse button twice in quick succession.

download: To send information from one point to another. For example, to send data from a computer to a printer.

draft printing: The mode in which the printer driver sends commands and ASCII codes to the printer, which prints using its internal fonts. This is often the fastest way to print a document.

drag: To position the pointer on something, press and hold the mouse button, move the mouse, and release the button.

dual in-line package (DIP): An integrated circuit packaged in a narrow rectangular box with a row of metal pins along each side. DIP switches on the box allow you to change settings.

8-pin mini-circular connector: The small, round connector on the serial interface cable that plugs into the computer. Also known as an 8-pin mini-DIN connector.

eject: (1) To remove a disk from a disk drive. (2) To move paper out of the printer.

emulate: To operate in a way identical to a different system.

emulation mode: A mode in which one system imitates another.

hard disk: A disk made of metal and sealed into a drive or cartridge. A hard disk can store much more information than a floppy disk.

icon: An image that graphically represents an object, a concept, or a message. Screen icons represent disks, documents, application programs, or other things you can select and open. A screen icon is a 32-by-32-bit image. Icons on the outside of the computer can be used to show you where to plug cables, such as the disk drive icon on the back panel that marks the disk drive connector.

input: (n.) Information transferred into a computer from some external source, such as the keyboard, a disk drive, or a modem. (v.) To transfer information in such a way. See also output.

input/output: See I/O.

installed font: A font installed in the System file of a startup disk. A font can be installed under System 6.0.x by using the Font/DA Mover. Under System 7 fonts are installed by copying the fonts from the font suitcase to the System file.

internal font: A font stored in the printer's ROM. An internal font is printed when the printer is in text mode (that is, not printing graphics) and receives printable ASCII characters. Also called a built-in font.

I/O: Input/Output; the process by which information is transferred between the computer's memory and its keyboard/mouse and other peripheral devices.

jaggies: Rough edges that occur with bitmap fonts or bitmap graphics.

margins: The border area around a page where text or graphics are not printed. Almost all printers must have

pixel: Short for picture element; the smallest dot you can draw on the screen. Also a location in video memory that corresponds to a point on the visible graphics screen.

pop-up menu: A menu which appears when you press on the displayed selection. Select an item from a pop-up menu by pressing the menu and dragging until the item you want is highlighted.

port: (n.) A socket on the back panel of a computer where you plug in a cable for connection to a network or a peripheral device.

printer driver: A program that controls the exchange of information between a printer and the computer. You must have a separate printer driver for each type of printer that you want to use.

printer port: A socket on the back panel of the Macintosh, marked by a printer icon.

queue: The list of documents which are waiting to be printed.

resolution: The degree of clarity of your display, or of your printout. Resolution is usually specified in dots per inch (dpi). The higher the value, the finer the detail of the image.

RS-232C cable: A standard serial interface cable that is wired in accordance with the RS-232C protocol.

screen font: Normally, a bit-mapped font intended for use on the computer screen. See also internal font and printer font.

serial communications network device: A hardware convertor that allows serial printers and devices to be used on a network.

System file: A file Macintosh computers use to start up and to provide system-wide information.

System Folder: The folder the system file resides in.

system font: The font that the system uses (in menus, for example).

text mode: Information sent to the printer in the form of characters rather than bitmaps. Usually associated with draft printing. See also graphics mode.

2x font: Fonts that are twice the size and contain approximately four times the amount of information about the shape of the image as the fonts shown on your screen.

TrueType: An outline font technology. Support for TrueType is built into System 7 and is optional under System 6.0.5 and 6.0.7. Contact your local Apple dealer for more information.

type race: A group of typefaces that share similar characteristics. The three primary type races are serif, sans serif, and specialty.

typeface: A particular, unique set of characters whose members share similar shapes and forms. See font.

window: The area that displays information on a desktop. You view a document through a window. You can open or close a window, move it around on the desktop, and sometimes change its size, scroll through it, and edit its contents.

WYSIWYG (What-You-See-Is-What-You-Get): The Macintosh standard of exactly matching screen display (formatting, size, and location of graphic objects) to printed output.

Index

double-sided printing 64, 67, 68
download 125
dpi 124
draft
  mode 43, 44, 56, 60–62, 97, 111, 114
  printing 125
drag 125
dual in-line package 125
duplex printing 64, 68

E

eject 125
emulation 25, 125
enlargement 43, 44
even pages 64
every page 64
Excel 117

F

Factory Default button 49
fast
  printing 57, 60, 111
  radio button 63
  text 62
fax 120
FCC compliance 2
Feed 64
File menu 28, 126
FileMaker II 115
FileMaker Pro 115
Finder 27, 126
Flip Horizontal 47
Flip Vertical 47
folder 126
font 14, 32, 97–99, 126
  cartridge 32
  mapping 37, 126
font mapping
  recommendations 37
Font/DA Mover 126
fonts 35
FoxBase 117
fractional widths 46, 114

G

Generic CADD 116
graphics mode 57–60, 65, 97, 109, 114, 126
grid 126

H

hard disk 127
head scan 65
help 27
HP Font pop-up menu 36

I

I/O 127
IBM computers 9
icon 26, 127
ImageWriter 15
input 127
install 22
installation 22–24
interface 9
internal fonts 32, 34, 56, 60, 61
Invert Image 47

J

JetLink Express 22
Job Offset 69

L

landscape printing 43
LaserWriter 15
LetraSet Font Studio 15
LocalTalk 84
Logical Connection 84

M

Mac Font pop-up menu 35
MacDraw II 116
MacDraw Pro 116
MacInTax 115
Macintosh guidelines 15
MacWrite II 116

product support 119
Professional Composer 117
Publish-It 118

Q

Quality 63
queue 73, 129
QuickDraw 14
Quicken 116

R

Read Me! file 22
Ready, Set, Go! 117
rearranging print jobs 73
reduction 43, 44
registration label 1
remote printing 85–88
removing a document 78
requirements 9
resolution 56, 57, 97, 129
Resolution Enhancement 66
resume printing 80

S

Save button 49
SC-1 cartridge 34, 61
scaling 43, 44, 62, 97
screen font 37, 61, 97, 98, 129
selecting the driver 32
serial interface 130
serial ports 89
Set to Default button 37
setting the preferences 81
Settings Dialog 48
sheetfeeder 48
shift-click 130
slow printing 111
spacing 38, 46
Spectre GCR 9
spooler 130
SpoolMaster 33, 72–81, 86, 112
startup disk 130
status 77
stop printing 80
style sheets 130
suggestions 11, 94
SuperLaserSpool 116
Switch-boxes 89
System
  folder 131
  requirements 9
System 7 9, 90, 98, 130

T

technical support 11, 119–120
testing 27
text mode 131
Trays dialog 67
troubleshooting 109–113, 114
TrueType 15, 98, 131
typeface 131

U

unidirectional 65, 66
Units of measurement 53
upgrades 11
Upper Tray is a Multi-Purpose Tray 68
upside-down 47
User Default button 49

W

warranty 2, 11
window 131
Wingz 117
Word 118
Word 3.01 117
WordPerfect 118
Works 118
WriteNow 118
WYSIWYG 57, 61, 62, 131

X

XPress 118

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Warning: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radio and television interference: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- *Reorient or relocate the receiving antenna.
- *Increase the separation between the equipment and receiver
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- *Consult the dealer or an experienced radio/TV technician for help

Important: Changes or modifications to this product not authorized by GDT Softworks Inc., could void the FCC certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of shielded cables and connectors between system components. It is important that you use shielded cables and connectors to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

DOC Class B Compliance: This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Observations des normes--Classe B: Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe B prescrites dans les règlements sur le brouillage radioélectrique édictés par le Ministère des Communications du Canada.

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Flip Horizontal 47
Flip Vertical 47
Invert Image 47
Precision Bitmap Alignment 47
Bigger Top Margin 48
Settings 48
Save 49
User Default 49
Factory Default 49
Paper 49
Paper List 50
New 51
Delete 51
Name 52
Width 52
Height 52
Units 53
Margins 53
Working with Custom Paper Sizes 54
To modify a custom paper size: 55
To delete a custom paper size: 55
Print Dialog 56
Print Mode 56
Graphics 57
Draft 60
Fast Text 62
Color 62
Quality 63
Best 63
Fast 63
Pages 63
Copies 64
Feed 64
Print Options 64
Print Order 65
Head Scan 65
Cover Page 66
Resolution Enhancement 66
Bins and Trays 67

General 109
Application notes 114
General notes 114
Specific notes 114
Getting Technical Support 119

Glossary 121

Index 133

Welcome!

Thank-you for purchasing PowerPrint by GDT Softworks. We have designed PowerPrint as a complete and easy-to-use printing solution for Macintosh users. This product will provide the ability to print high quality text and graphics intuitively to any one of a wide variety of printers.

What's in PowerPrint

PowerPrint consists of software printer drivers and a high speed serial-to-parallel adapter which allows for a virtually transparent connection between your Macintosh and printer. PowerPrint provides eighteen drivers which support the connection of over 1000 printers to the Macintosh.

Your PowerPrint package includes:

Two 1.44Mb (HD) installation disks:

Use these disks to install PowerPrint on your computer. If you require 800K diskettes for your computer, please contact our Technical Support Department via one of the methods listed in the Appendix.

Two pieces of documentation:

- PowerPrint User's Manual
- Warranty Registration Card

One connecting cable:

- PowerPrint Converter Cable

  This is a high-speed serial to parallel converter which does not require any external power. The PowerPrint cable has an 8-pin connector (DIN-8) at one end which connects to either the printer or modem port on your Macintosh. The other end of the cable has a standard parallel connection which connects to the parallel port on most printers.

About this manual

This manual is your complete guide to PowerPrint. It provides you with instructions for setup and operation as well as with specific information on each of the included printer drivers.

We have targeted most of this material for the intermediate user. If you find that this manual contains words that you do not understand, please take a look at the glossary at the back of the manual for explanations of some of the "computer-babble" that you will be exposed to in the Macintosh world. The material in this book also assumes that you are familiar with the basic operation of your Macintosh and you know how to copy, move, and operate files, disks, menus, and dialog boxes. If you need some background on these topics, please refer to your Macintosh User's Manual from Apple.

Organization

The PowerPrint manual is organized so that you can set up and start printing quickly.

Chapter 1 introduces you to PowerPrint and Macintosh printer drivers in general.

Chapter 2 is a Quick Start installation for experienced Macintosh users.

Chapter 3 provides detailed hardware and software installation of PowerPrint.

Chapter 4 discusses the features in each of the drivers and how to select them in the dialog boxes.

Chapter 5 contains a description of SpoolMaster, a print spooling utility which is included with PowerPrint.

Chapter 6 describes some of the different methods that you can use to hook up your printer to your Macintosh. Some considerations for multiple computer or mixed computer environments are also presented.

What is a printer driver?

A printer driver is a software program that controls the exchange of information between a printer and a computer application. Printer drivers are not only specific to a type of computer but also to a type of printer.

What is PowerPrint?

PowerPrint is a collection of independent software printer drivers and a high-speed connecting cable. The collection of printer drivers allows PowerPrint to provide you with most of the standard Apple printing options as well as features that take full advantage of your printer's capabilities. The PowerPrint cable provides a very fast, seamless connection from the standard ports on the Macintosh to the parallel connector which is standard on most printers.

What PowerPrint can do

The backbone of PowerPrint is its ability to accurately reproduce Macintosh QuickDraw images on the printed page. In addition, its intelligent features allow you to manipulate these images in many ways. Although the driver does not execute PostScript commands or interpret them, PowerPrint can use outline fonts, mathematical descriptions of characters, just like the fonts in a PostScript printer or interpreter.

Outline font descriptions are essential in the desktop publishing industry and have become a standard in everyday computing, where you need font sizes and styles that suit your document, and not a document that suits your font sizes and styles. In order to provide you with more flexibility, PowerPrint is compatible

Introduction

Quick Start

This chapter is for experienced Macintosh users who want to install and use PowerPrint immediately. Step-by-step details of this procedure follow in Chapter 3 for those who find this discussion too brief.

Note: *Although it is not required, we recommend that you make a backup copy of all your PowerPrint master disks before using them.*

1. Insert the PowerPrint labelled "Disk One" and open the Read Me! document. Read the contents of this document as it contains information which was not available when this manual was printed. Quit the Read Me! document when you are finished.

2. Run the Installer and ensure that your startup disk drive is the selected drive for the installation.

3. Select the appropriate driver package you require for your printer and then click on the Install button. Check the Printer Compatibility List in the Appendix if you are unsure about which driver is required for your printer.

4. Quit the Installer and shut down your computer and turn off the printer.

5. With your computer and printer off, connect the printer to your Macintosh with the PowerPrint cable. The power to the computer and printer should always be off when connecting the PowerPrint cable.

6. Verify that the settings on the printer are set correctly for parallel communications. The printer's DIP switches or front control panel settings should be set for:

- Parallel communication
- If required, the proper emulation for the driver you wish to use (see the Printer Compatibility List in the Appendix).

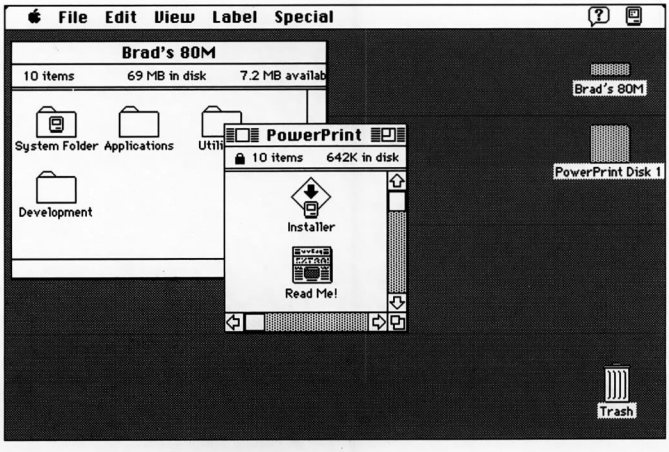
This chapter describes how to install PowerPrint, connect your printer to the computer, and perform a test print.

Installing PowerPrint

Note: *Although it is not required, we recommend that you make backup copies of all the PowerPrint master disks before using them.*

Note: *If you have installed and used previous versions of PowerPrint, JetLink Express, or PrintLink Collection, you must remove the files relating to those products from your System folder before beginning the installation of this version of PowerPrint.*

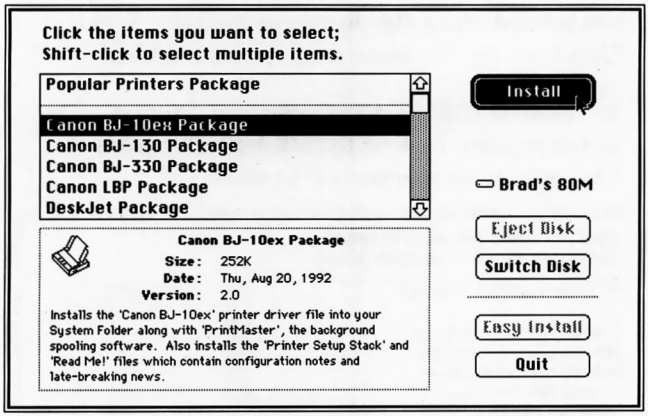
1. Your Macintosh should be on. If you are in an application, quit the program and go to the Finder (the desktop showing you the icons of your startup disk and files). Insert the PowerPrint disk labelled "Disk One". Once you have inserted the disk, the disk window will appear, showing the contents of that disk.



The Finder with PowerPrint Disk 1 installed.

Read Me!

2. Double-click on the Read Me! file. A window will appear, displaying the contents of the document. This document contains information concerning


Click the items you want to select;
Shift-click to select multiple items.
Popular Printers Package
Canon BJ-10ex Package
Canon BJ-130 Package
Canon BJ-330 Package
Canon LBP Package
DeskJet Package
Install
Brad's 80M
Eject Disk
Switch Disk
Easy Install
Quit
Canon BJ-10ex Package
Size: 252K
Date: Thu, Aug 20, 1992
Version: 2.0
Installs the 'Canon BJ-10ex' printer driver file into your System Folder along with 'PrintMaster', the background spooling software. Also installs the 'Printer Setup Stack' and 'Read Me!' files which contain configuration notes and late-breaking news.

Installing the Canon BJ-10ex Package.

6. Click on the Install button. The files which you selected will be installed into your computer. When the installation is complete, an alert will be displayed to notify you that the installation was successful. Click on the Quit button to exit the Installer.

Note: *If you wish to install additional PowerPrint drivers, clicking on the Continue button will return you to the installer. Repeat steps 5 and 6 for each driver you wish to install.*

7. Select Shut Down from the Special Menu of the Finder and turn the power off to your Macintosh and printer. The power must be off for the following section, Cable Connection and Printer Setup.

Cable Connection and Printer Setup

8. With the power to the Macintosh and the printer turned off, connect the printer to your Macintosh. Insert the 8-pin mini-circular (DIN-8) connector of the PowerPrint cable into the printer or modem port of the Macintosh (either port can be used). Attach the other end of the cable to the Centronics parallel port on your printer.

Your printer may not have all of these settings as options. Make as many of the above or equivalent settings as possible.

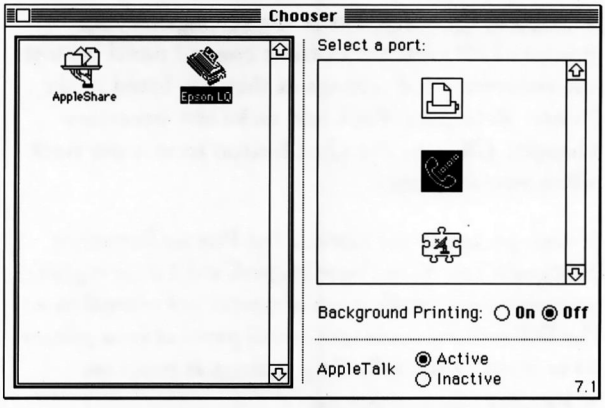
12. If your printer is not already on, turn it on now. Your printer's on-line light should be on.

Your printer is now connected to your Macintosh and you are ready to activate the PowerPrint software.

Activating Your Driver

13. Go to the Apple menu and select Chooser.

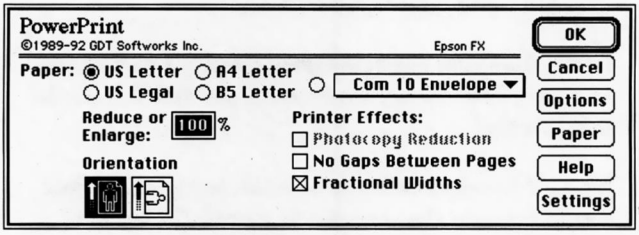
14. Select the printer driver you have just installed by clicking once on its icon.



Note: *Your Chooser window will probably show a different selection of drivers. Make sure you choose the appropriate driver for your printer. The puzzle icon will only be displayed if the Communications Toolbox is installed or if you are running System 7.*

15. Now click on the serial port to which you have your printer cable connected, either the modem (phone) or printer icon.

17. Go to the File menu and select Page Setup.

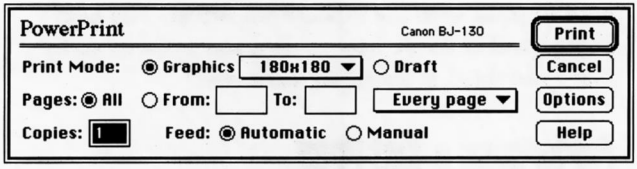


The Page Setup dialog from the Epson FX driver.

18. Make appropriate selections to your Page Setup controls. Verify that the proper paper is selected.

19. Click OK to close the Page Setup dialog box.

20. Go to the File menu and select Print Window (Print Directory under System 6.0.x or Print if you are in an application).



Print dialog for the Canon BJ-130 driver.

21. Make appropriate selections to your Print controls.

22. Click on the Print button to print.

If you have made the correct hardware settings and connections, and you have followed the above procedures carefully, your printer should print a directory.

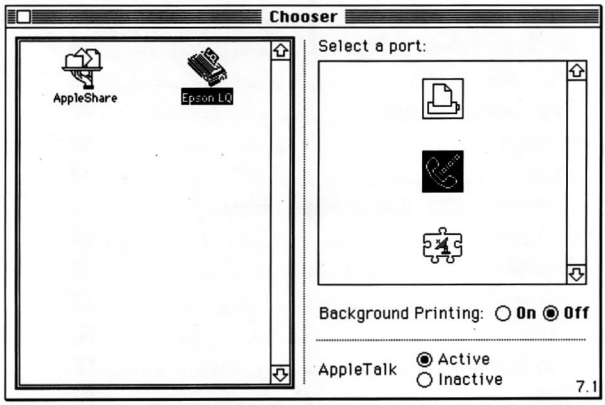
If your printer does not print, please double-check all the steps in this chapter. If you still experience difficulties, please consult the Troubleshooting Notes and the Getting Technical Support sections of the Appendix.

This chapter describes all the features of each PowerPrint dialog box. It is organized in a hierarchical fashion according to the location of the dialog boxes.

Note: *Not all options are available in all drivers.*

Chooser

The Chooser is a desk accessory that allows you to select and configure your system to print to a connected printer. Some drivers will have access to the Cartridges dialog, which gives you control over the internal fonts and font cartridges which may be available with your printer. The Chooser is available from a selection under the Apple Menu.



The Chooser with the Epson LQ driver selected and the modem (phone) port activated.

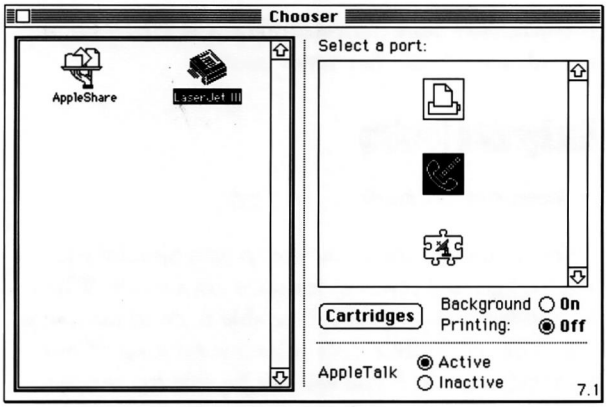
Note: *Your Chooser window will probably show a different selection of drivers. Make sure you choose the appropriate driver for your printer. The puzzle icon will only be displayed if the Communications Toolbox is installed or if you are running System 7.*

After you have installed the PowerPrint driver for your printer, it will appear in the Chooser. Click on the icon for your driver to select it. After selecting the PowerPrint driver, click on the port (either the printer or the

Cartridges

Available in: Canon LBP, LaserJet, LaserJet Plus, LaserJet II, LaserJet IIP, LaserJet III, LaserJet 4, DeskJet, DeskJet 500, DeskJet Portable

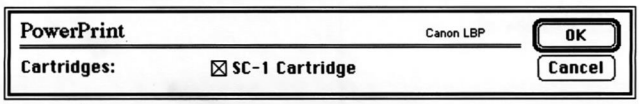
Clicking on the Cartridges button will display the Cartridges dialog. This dialog allows you to gain access to some of the many different internal fonts and font cartridges available.



The Chooser as it appears when the Cartridges button is available.

Laser Beam Printers

If you have the Canon SC-1 cartridge installed in your printer, clicking the Cartridges button will display the Canon Cartridges dialog box. To make cartridge fonts available, you should click in the SC-1 Cartridge checkbox.



The Cartridges dialog as it appears in the Canon LBP driver.

DeskJets and LaserJets

The cartridges dialog for HP printers allows you to match a Macintosh screen font to internal or cartridge

HP Font

Two pop-up menus list the HP internal and cartridge fonts and sizes that you can map to a Macintosh screen font.

Add

This button adds the selected cartridge mapping to the driver.

To add a Macintosh-to-HP font mapping to the list:

1. **Select the Macintosh screen font you want to use.**

2. **Use the pop-up menu or type a number in the size box to select the Macintosh screen font size which you believe will best represent the HP font and size you are mapping.**

3. **Select the HP font and size you want to map.**

Note: *If you are mapping to an HP font which has a half point size, such as Letter Gothic 9.5, select the next larger size (Letter Gothic 10).*

4. **Click the Add button.**

5. **To save your new mapping, click the OK button.**

More than one Macintosh font can be mapped to a single HP font. However, a Macintosh font at a designated point size can be mapped to only one HP font and size. Altogether, you can have up to ninety-nine font mappings.

Example: You have an HP cartridge with a TmsRmn 12 font. Add the mappings for the Macintosh fonts Times 11, Times 12, Times 13, and Times 14 to the HP

Courier or Monaco. Proportionally spaced HP fonts such as Helv and TmsRmn will usually map best to proportionally spaced Macintosh fonts. Wherever possible, try to use fonts that are similar to each other, such as Helv and Helvetica.

Some of our recommendations differ from the default settings, because some of the best Macintosh font sizes recommended are non-standard sizes (such as 13 point). The default settings will provide you with pretty good horizontal spacing. The list of cartridge mappings which follows provides suggestions for you to try if the default mappings do not provide you with desirable horizontal spacing. We encourage you to use these mappings and also try your own, to obtain better results.

Mac Font	HP Font
Courier 10	Courier 10
Courier 12	Courier 12
Courier 8	Prestige 7
Courier 10	Prestige 10
Courier 9	Line Printer 8.5
Helvetica 8	Helv 8
Helvetica 10	Helv 10
Helvetica 12	Helv 12
Helvetica 15	Helv 14
Monaco 7	Letter Gothic 9.5
Monaco 9	Letter Gothic 12
Times 9	TmsRmn 8
Times 11	TmsRmn 10
Times 13	TmsRmn 12

LaserJet/Plus/II/IIP

Mac Font	HP Font
Courier 10	Courier 10
Courier 12	Courier 12
Helvetica 10	Helv 10
Helvetica 12	Helv 12
Helvetica 18	Helv 14
Times 12	TmsRmn 10
Times 14	TmsRmn 12
Times 18	TmsRmn 14

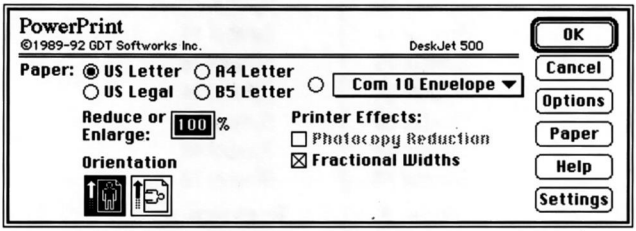
LaserJet III

Mac Font	HP Font
Courier 10	Courier 10
Courier 12	Courier 12
Helvetica 9	Univers 8
Helvetica 10	Univers 9
Helvetica 12	Univers 11
Helvetica 14	Univers 13
Helvetica 18	Univers 17
Helvetica 24	Univers 22
Helvetica 36	Univers 34
Helvetica 48	Univers 46
Helvetica 72	Univers 69
Times 9	TmsRmn 9
Times 10	TmsRmn 10
Times 12	TmsRmn 11
Times 14	TmsRmn 13
Times 18	TmsRmn 16
Times 24	TmsRmn 22
Times 36	TmsRmn 35
Times 48	TmsRmn 47
Times 72	TmsRmn 71

Page Setup Dialog

The Page Setup dialog box is used to set up how your document will be formatted when it's printed. It allows you to select different paper and envelope sizes, reduce or enlarge the image, specify image orientation, control image reduction, and adjust inter-word spacing. Printers which support the use of continuous paper also have the option of printing without gaps between pages.

The Page Setup dialog also provides access to the Page Setup Options dialog and the Settings dialog box which are described later in this chapter. Some drivers also have access to a Paper dialog box which allows you to define custom paper sizes.



The Page Setup dialog as it appears with the DeskJet 500 driver.

Paper

Available in: All drivers

The paper sizes listed represent standard types of paper available with your printer. Click the radio button next to the size you wish to use. Additional paper sizes are available from the pop-up menu.

Some drivers have the ability to add custom paper sizes to this pop-up menu via the Paper button. Instructions on how to define a custom paper size are available in the Paper section of this chapter. For a listing of the dimensions of the various paper selections, please see the Appendix.

printing in graphics mode (see the Quality section later in this chapter).

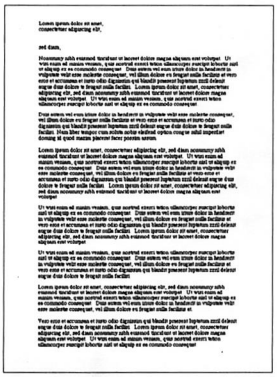
Note: *Some printers do not support landscape orientation when printing in draft mode. The Draft setting in the Print dialog will be dimmed for these printers when landscape is selected.*

Photocopy Reduction

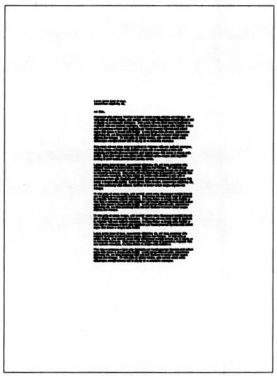
Available in: All drivers

This selection has an effect only when a value less than 100% is entered in the Reduce or Enlarge field in the Page Setup dialog box. If this option is selected, the resulting reduced image will be printed in the center of the page. If it is not selected, the reduced image will be printed at the full size of the page, which will result in a larger viewing area (convenient for large drawings). The following examples display the results of using photocopy reduction in different situations.

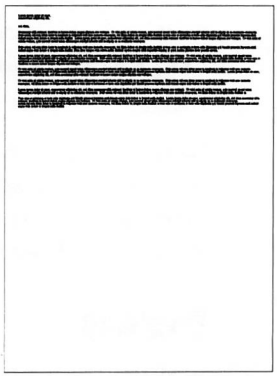
The effect of Photocopy Reduction on a word processing document:



Normal (100%)



50% reduction with Photocopy Reduction



50% reduction without Photocopy Reduction.

Fractional Widths

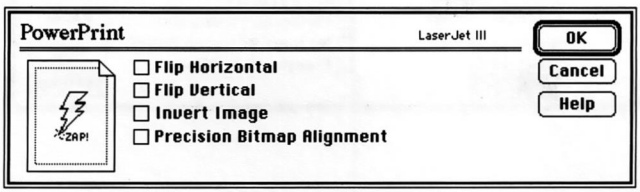
Available in: All drivers

Fractional character widths helps your Macintosh determine the proper spacing between words. When this checkbox is selected, PowerPrint will force fractional character widths, even if your application does not use this system feature. If your application already has a fractional widths option that is turned on, PowerPrint will let the application determine the proper spacing.

We suggest that you leave this checkbox on at all times. If your application has its own fractional character widths control, we suggest you turn that on as well. Short summaries of how to turn this feature on for some applications are in the Application Notes in the Appendix. Consult your application manual for more detailed information.

Page Setup Options

You can access the Page Setup Options dialog box by clicking on the Options button in the Page Setup dialog. This dialog box allows you to manipulate an image by inverting it or flipping it horizontally or vertically. Some drivers also have an option to control image reduction options. The Epson FX and Epson LQ drivers have a control for selecting the size of the top margin for each page.

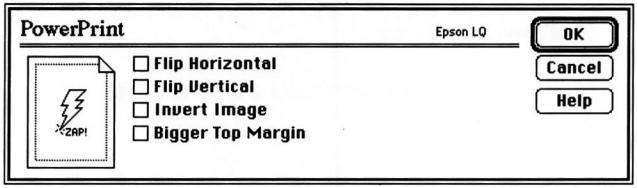


The Page Setup Options dialog as it appears in the Canon LBP, ThinkJet, and all DeskJet and LaserJet drivers.

Bigger Top Margin

Available in: Epson FX, Epson LQ

Selecting this option will force a larger margin at the top of each page. This is useful if you are using a sheet-feeder on your printer which does not permit printing close to the top of a page.

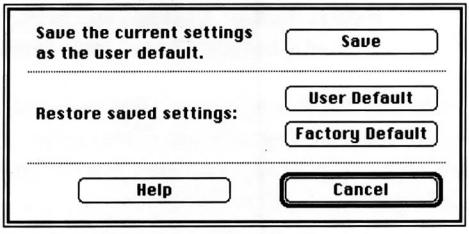


The Page Setup Options dialog as it appears with the Epson FX, and Epson LQ drivers.

Settings

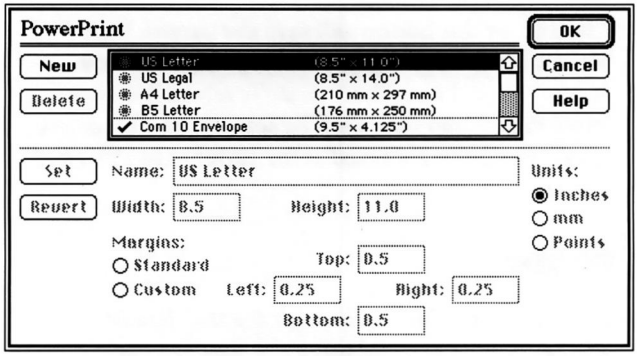
Available in: All drivers

Clicking on the Settings button in the Page Setup dialog will bring up the Settings dialog. This dialog allows you to set the standard settings that will be used for all new documents. This feature is particularly useful if US Letter is not your usual paper size.



The Settings dialog.

Note: *Some applications, such as Microsoft Word, have their own set default feature which sets the default settings for that application. Do not confuse it with PowerPrint's Settings option, which sets the default settings for all applications. In applications which have their own set default feature, the application's default settings will have priority.*



The Paper dialog box.

Paper List

The top half of the Paper dialog contains the Paper List which shows all the available paper sizes for the driver. The paper names are listed in a scrolling window with their page dimensions listed next to them. The first four paper names listed in the list are always the four paper sizes which are selectable via the Paper radio buttons in the Page Setup dialog. The remaining paper sizes, which are listed below the dotted line, may appear in the Paper pop-up menu.

To the left of the paper name is an area which allows you to set the paper's availability in the paper pop-up menu which appears in the Page Setup dialog. Clicking in this area will either add or remove a check mark from beside the respective paper name. All paper names listed below the dotted line that are checked will appear in the paper pop-up menu.

Note: *A grey radio button beside a paper name indicates that it is set to appear as one of the Paper radio button selections. These paper sizes can not be edited.*

User-defined paper sizes can be edited by selecting them in the Paper List and making the desired changes.

Name

This edit box is where you can enter a new or modify an existing paper size name. This edit box is only available after clicking on New in the upper half of the window or selecting a user-defined paper name from the Paper List.

Width

Enter the width of the custom paper size in this edit box. The value must between 1 inch and 100 inches (25.4 mm and 2540 mm).

Note: *Because of physical restrictions with the DeskJet printers, the DeskJet, DeskJet 500, and DeskJet Portable drivers limit the values entered into this field. The minimum width of a custom paper size when using these drivers is 4.5 inches (114.3 mm), the maximum width is 8.5 inches (215.9 mm).*

Height

Enter the height of the custom paper size in this edit box. The value must between 1 inch and 100 inches (25.4 mm and 2540 mm).

Note: *Some applications will not be able to handle custom paper sizes that are too large or too small. Also, your printer will not be able to handle paper sizes that are wider than the carriage.*

Note: *Because of physical restrictions with the DeskJet printers, the DeskJet, DeskJet 500, and DeskJet Portable drivers limit the values entered into this field. The minimum height of a custom paper size when using these drivers is 2 inches (50.8 mm), the maximum height is 14 inches (355.6 mm).*

Margins: Top, Left, Right, and Bottom

Enter the size of the margins in these edit boxes. If the combined margins of your custom paper size leave no printable area a warning dialog box will appear.

Working with Custom Paper Sizes

The following examples are listed here to help illustrate the process of creating custom paper sizes from within PowerPrint.

To create a custom paper size:

1. Click on the New button. The edit boxes in the lower half of the window will become active.

2. Enter the name of the new paper size in the Name edit box.

3. Select the unit of measurement and enter the width and the height in the appropriate boxes.

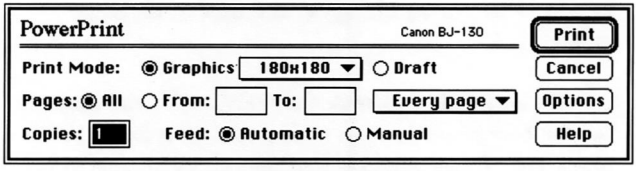
4. If you need to adjust the margins for the page, set the Margins selection to Custom. The edit boxes to the right will become active allowing you to change the margin settings. Enter the new margin values for the top, left, right, and bottom margins in the appropriate edit boxes.

5. If you want to enter another paper size, click on the Set button and repeat from step 1. Otherwise click the OK button. If you don't want to keep the new size, click Cancel.

The new paper sizes are available in the paper pop-up menu in the Page Setup dialog.

Print Dialog

The Print dialog box allows you to select graphics or draft mode printing, quality of print, number of copies, page range, color, and paper source. Not all options are available for all drivers. The Print Options dialog and, if applicable, the Bin or Tray dialog boxes can be accessed from the Print dialog box.



The Print dialog from the Canon BJ-130 driver.

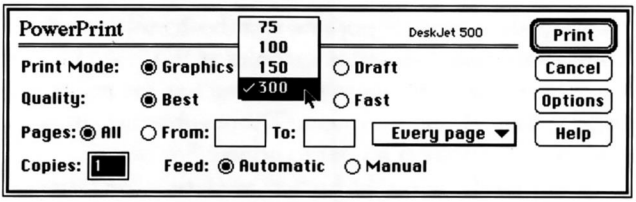
Note: *Not all of the following options are available in all PowerPrint drivers.*

Print Mode

Available in: All drivers

PowerPrint supports a number of different printing modes including draft mode, which uses the fonts available in your printer, and several different graphic resolutions. The graphics modes allow you to print a document as you see it on the screen. These modes allow you to include graphics, such as charts or pictures, and to use various Macintosh fonts in your document. Draft mode, however, does not support the printing of any graphics and can only print using the fonts which are built into the printer itself. Because of this, printing in draft mode is much faster than any of the graphics modes and is suited to printing letters, memos, or rough drafts.

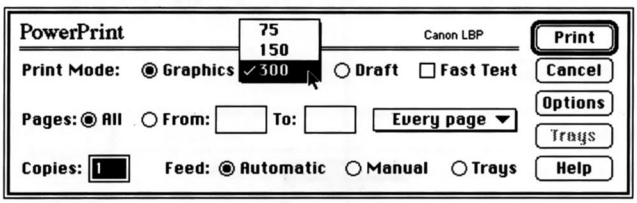
DeskJet, DeskJet 500, DeskJet Portable



The DeskJet, DeskJet 500, and DeskJet Portable drivers support resolutions of 75, 100, 150, and 300 dpi. Paper source selection is in the Print dialog.

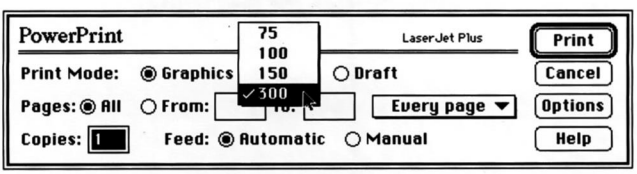
Note: *The DeskJet and DeskJet 500 drivers will ignore the Paper Feed setting in the Print dialog when printing envelopes because manual feed must always be used when printing envelopes with these printers.*

Canon LBP



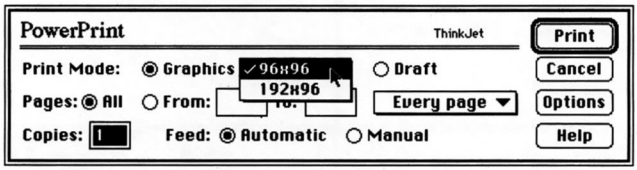
The Canon LBP driver support resolutions of 75, 150, and 300 dpi. Paper source selection is available through the Trays button.

LaserJet, LaserJet Plus, LaserJet II, LaserJet IIP and LaserJet III



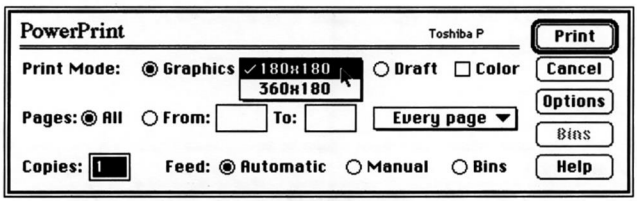
The LaserJet, LaserJet Plus, LaserJet II, LaserJet IIP, and LaserJet III drivers support resolutions of 75, 100, 150,

ThinkJet



The ThinkJet driver supports resolutions of 96x96 and 192x96 dpi. Paper bin control is accessible through the Bins Button.

Toshiba P



The Toshiba P driver supports resolutions of 180x180 and 360x180 dpi. Paper bin control is accessible through the Bins Button.

Draft

When this radio button is selected, the driver accesses the internal and cartridge fonts of the printer to print text only, stripping out all graphic elements. Selecting Draft mode printing results in faster printing times than the previously mentioned graphic printing mode, but sacrifices the ability to print graphics and places some restrictions on the font and format control you have.

Draft mode uses the internal fonts which are built into your printer to output text. Because the information required to print these fonts is already stored in the printer, much less data needs to be sent to the printer by the computer. This results in faster printing times.

In summary, if you are printing documents with text only draft mode will provide you an option to print the documents faster than graphics mode but may sacrifice WYSIWYG.

Fast Text

Available in: Canon LBP

When this checkbox is marked, the Canon LBP driver will determine if any text in a document matches the fonts in the printer or in an installed cartridge. They will print this text using the printer's fonts. All other text, whether outline or bitmapped, along with all the graphics elements, are sent as a graphic image.

We recommend that you use this option as much as possible, as it can dramatically decrease printing times at higher resolution settings. There are two points of caution with this option, however. If you have any text that is hidden behind a graphic image, the text may be printed on top of the graphic. Also, text positioning may not be as accurate as in graphics mode. For normal, everyday documents, Fast Text will save you a lot of time. Just be aware of its limitations when you are printing more specialized documents.

Note: *Page setup options and scaling are not supported while printing with fast text.*

Color

Available in: Epson FX, Epson LQ, Toshiba P, NEC Pinwriter

This selection allows you to enable color printing if a color ribbon is installed in your printer. When the color checkbox is selected, printing of black, blue, cyan, green, magenta, red and yellow is supported. If

The Pages pop-up menu allows you to control which pages of a multiple page document get printed. When Every page is selected, the entire document is printed. By selecting Odd pages, only the odd numbered pages are printed; by selecting Even pages, only the even numbered pages are printed. This allows you print on both sides of the paper by printing all the even numbered pages in a document and then re-feeding those sheets into the printer and printing all the odd numbered pages on the back.

Copies

Available in: All drivers

Type the number of copies you want to print in this edit box. The maximum number is nine-hundred ninety-nine (999).

Feed

Available in: All drivers

This allows you to select the paper to be fed automatically or hand fed individually. If you are using a printer which supports the use of bins or trays, a selection for accessing the bin or tray settings will also be available (see Bins and Trays later in this chapter).

Print Options

This dialog box allows you to control the printing order of your document and also allows you to print a cover page for your document. Some drivers will also

Note: *Selecting unidirectional printing is recommended for printing documents with columns in draft mode.*

Note: *Some printers do not support bidirectional printing or place limitations on the situations it can be used. Refer to your printer manual for limitations that apply to your printer.*

Cover Page

Available in: All drivers

This radio button allows you to print with or without a cover page. You can print the cover page before or after a print job. The cover page lists the driver name and version, the document name, the application name, the user name (as specified in the Sharing Setup Control Panel or in the Chooser), the date, and the time. This option is recommended when using the printer driver in a network environment.

Resolution Enhancement

Available in: LaserJet 4

This pop-up menu allows you to select the Resolution Enhancement setting on the printer. Resolution Enhancement technology (RET) improves the quality of characters and graphics by "smoothing" the fine graduations along the angles and curves of the printed image. Setting this selection to Printer Default will use the RET setting which is selected on the printer. For more information on RET, please consult your printer's manual.

Tray/Bin Selection Options, the Trays or Bins radio button must be selected for the Feed option in the Print dialog. See the Working with Trays section later in this chapter for examples of how to use this feature.

Note: *Applications which treat each page as a separate print job will always print from the tray which is selected in the First Sheet From selection when using the Tray Selection Options.*

Duplex Printing

Available in: Canon LBP, LaserJet II, LaserJet III

Providing that your printer is capable of duplex printing, turning on this checkbox will allow you print on both sides of the paper. You can also specify whether the pages will be bound on the long or short edge.

Long Edge: Set this option if you will be binding your pages along the length of the page. Printing begins at the top of the page on both sides.

Short Edge: Set this option if you will be binding your pages along the width of the page. Printing begins at the bottom of the page on the reverse side.

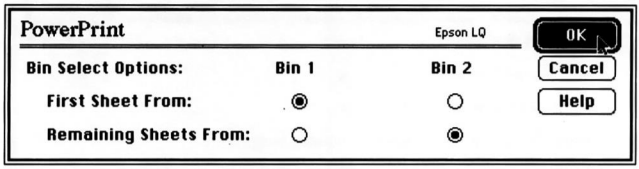
Upper Tray is a Multi-Purpose Tray

Available in: Canon LBP

If your printer has a front tray which is a multi-purpose tray, this option should be selected. The Canon LBP-4 printer is an example of this type of printer which should have this selection checked. The Canon LBP-8mkIII series printers are examples of printers which do not have this tray and, therefore, should have this selection unselected. If you do not know if your printer has a multi-purpose tray, consult your printer manual.

5. Click on the OK button. You are now ready to print your document.

Setting the Bin selection options as in the above example.



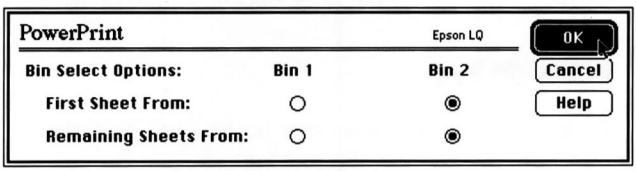
To feed all pages from tray (or bin) two:

1. From the Print dialog, set the Feed selection to Trays or Bins.

2. Click on the Trays button to access the Trays dialog which allows you to set the tray selection options.

3. Set the First Sheet From radio button to Tray 2

4. Set the Remaining Sheets From radio button to Tray 2.



5. Click on the OK button. You are now ready to print your document.

This chapter describes the SpoolMaster software which is included with PowerPrint. A short description of what SpoolMaster does and how it works is followed by a brief listing of some of the features which SpoolMaster provides and a tutorial on how to use them.

Introduction

SpoolMaster is a spooling utility which has been specially developed for use with PowerPrint. When SpoolMaster is installed and activated, you can continue to use your computer while printing documents on your printer. The task of preparing your documents and sending the information to the printer is automatically controlled by SpoolMaster in the background. This allows you to regain control of your Macintosh quickly instead of being forced to wait until the document is finished printing.

To allow you to regain control of your Macintosh, SpoolMaster intercepts the time-consuming details of printing a document and handles them unobtrusively while you continue to work. When you select Print from the File menu within a program, SpoolMaster jumps into action. First, a copy of the document you are asking to print is saved as a spool file on disk. After a few moments the use of your computer is returned to you. At that point, SpoolMaster continues with the printing process in the background, allowing you to continue to work. Information is continuously retrieved from the disk, processed, and sent to the printer by SpoolMaster until the document is finished printing. Once printing has been completed, the disk image of the document is deleted and SpoolMaster closes itself and waits patiently for another document to print.

Using SpoolMaster

Before you begin using SpoolMaster with your printer, you should first ensure that your printer is working correctly with PowerPrint. If you followed the installation instructions as outlined in chapter 3 and successfully performed the test print which it describes, then you may turn on SpoolMaster to activate background printing.

Note: *SpoolMaster creates a copy of the printer driver and temporary files which it uses to store the information you have requested to print. Because of this, it is necessary to have sufficient free space available on your hard disk drive for SpoolMaster to have room to save these files. Typically, you should have at least 2.5 Mb available on your hard disk drive when SpoolMaster's background printing is turned on.*

Activating SpoolMaster

1. **Go to the Apple Menu and select Chooser.**

2. **Select the printer driver which you installed in chapter 3 by clicking once on it's icon.**

3. **Turn on the Background Printing option by clicking the appropriate radio button.**

Note: *If the Background Printing selection is not available (greyed-out) then SpoolMaster has either not been installed, or was not loaded when you started up your computer. Check the installation instructions in chapter 3 to ensure that you have correctly installed SpoolMaster.*

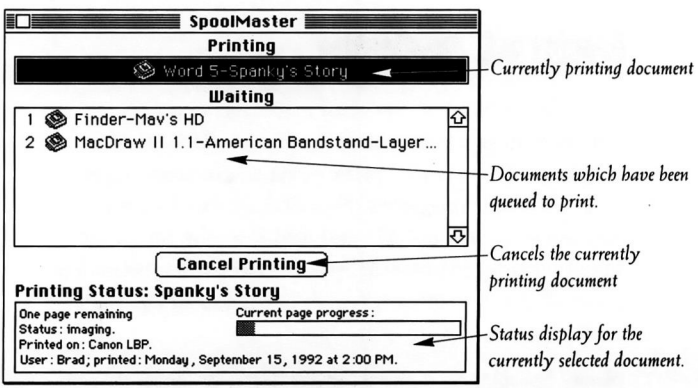
Working with SpoolMaster

While a document is printing, you can access SpoolMaster by selecting it from the Application menu in the top right-hand corner of the screen (under the Apple Menu with System 6.0.x).

If there are no documents being printed, SpoolMaster can also be launched by double-clicking on the SpoolMaster icon which is located inside the System folder (within the Extensions folder under System 7.0).

The SpoolMaster window displays information concerning the currently printing document and other documents which are queued to be printed. It also allows you to cancel, pause, remove, or rearrange the order in which documents will be printed, as well as set the preferences concerning SpoolMaster. The remainder of this section will describe how to use these features.

The SpoolMaster window



The SpoolMaster window.

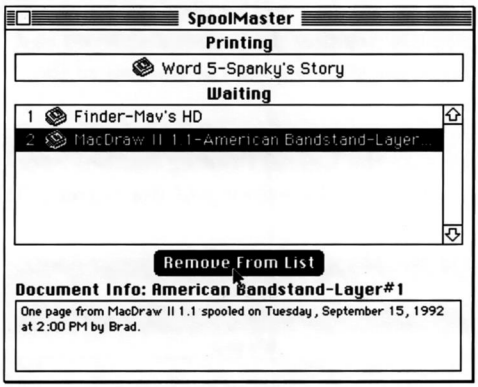
The SpoolMaster window is divided into three basic parts. The top of the window contains an area which displays the document which is currently being printed. The area directly below the Printing field

Removing a document

If you have one or more documents which have been queued by SpoolMaster, you can remove a document from the queue so that it is not printed. Perform the following steps to remove a document from the queue:

3. Select SpoolMaster from under the Application menu in the top right-hand corner of the screen (under the Apple Menu with System 6.0.x). The SpoolMaster window will be displayed. The currently printing document will be shown in the Printing area at the top of the window and will be selected.

4. Click on the name of the document listed in the Waiting area which you would like to remove from the queue. The document name will become selected and the document information will be displayed in the status area at the bottom of the window.


SpoolMaster
Printing
Word 5-Spanky's Story
Waiting
1 Finder-Mav's HD
2 MacDraw II 1.1-American Bandstand-Layer
Remove From List
Document Info: American Bandstand-Layer#1
One page from MacDraw II 1.1 spooled on Tuesday, September 15, 1992 at 2:00 PM by Brad.

Removing the "American Bandstand" document from the list of documents waiting to be printed.

5. Click on the button labelled "Remove From List". The document will be removed from the queue.

Changing the printing order

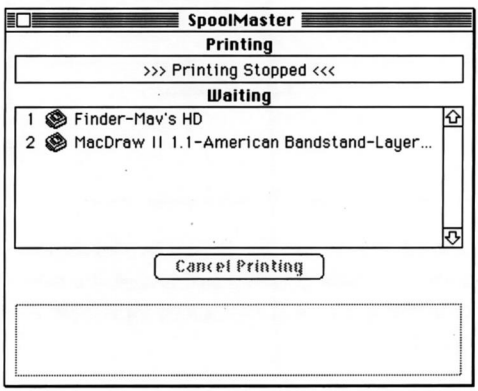
If you have several documents which have been queued by SpoolMaster and are waiting to be printed, you can change the order in which they are printed.

Stop and resume printing

SpoolMaster provides a control which allows you to stop and resume printing. If, for some reason, you need to halt the printing of your queued documents temporarily, this feature will allow you to do so. The following instructions describe how to stop and resume the printing of the documents listed in the queue:

5. Select SpoolMaster from under the Application menu in the top right-hand corner of the screen (under the Apple Menu with System 6.0.x). The SpoolMaster window will be displayed. The currently printing document will be shown in the Printing area at the top of the window and will be selected.

6. Select Stop Printing from under the File menu. A message will be displayed in the Printing area of the SpoolMaster window to indicate that the printing is currently stopped.



The SpoolMaster window with printing stopped and documents waiting to be printed.

Note: *If a document is in the process of being printed when Stop Printing is selected, printing will not be stopped until after the document is completed.*

7. To resume printing again, select Resume Printing from under the File menu.

PowerPrint allows for a great deal of flexibility when connecting your printer to your Macintosh using any one of many third party options. This chapter describes how to take advantage of PowerPrint's communication flexibility.

Networks and Networking

PowerPrint can be used over a network with a serial-to-AppleTalk network device such as Shiva's NetSerial, or with printer sharing devices such as Extended Systems' ESI-2000 series switchboxes, Buffalo Products' Buffalo SLmkII, and Fifth Generation Systems' Logical Connection among others.

If you are interested in sharing your printer with a number of other Macintosh computers over a network, the other members of the PowerPrint family may be an ideal solution for you. PowerPrint/LT is a package that includes a parallel-to-LocalTalk connector for your printer that allows you to share it with several Macintosh computers on a LocalTalk or PhoneNet network. PowerPrint/NW enables Macintosh computers on a Novell NetWare network to access and print directly to Novell print queues. If you would like more information on any of the PowerPrint family of products, contact your local dealer or GDT Softworks directly.

NetSerial Connection

PowerPrint supports the use of Shiva's NetSerial connection which allows a serial device to be accessed by computers on a network. The following provides basic directions to connect your Macintosh to your printer through Shiva's NetSerial. If you require more detailed information, please consult the Shiva NetSerial manual.

System 7, connected to an AppleTalk network, and has PowerPrint installed and working correctly. Other Macintosh computers which will be accessing the remote printer ("clients") must also be running System 7 and connected to the same AppleTalk network as the host.

The following directions briefly describe how to configure the host and client computers to work with remote printing and are for advanced users only. If you experience difficulties with these instructions, please refer to your System 7 Reference manual for more information on File Sharing.

Note: *If you are using PowerPrint to connect your computer to both a local printer (one which is directly connected to your computer) as well as a remote printer, the locally connected printer must have the Background printing selection set to off.*

Note: *These steps assume that you have already installed PowerPrint on the host computer and have ensured that it is working correctly. If you have not yet done this, follow the installation instructions as described in chapter 3 and perform the test print which it describes.*

Perform these steps on the host computer:

1. **Turn on SpoolMaster as described in the Activating SpoolMaster section of chapter 5.**

2. **Turn on AppleTalk. This can be done by selecting Chooser from the Apple menu and click on the AppleTalk Active button in the resulting window. Close the Chooser window once you have made AppleTalk active.**

Note: *The following six steps (3-8) configure your host computer to use System 7's file sharing capabilities so that print jobs can be sent to it from client computers on the network. Please refer to your System 7 Reference Manual if you require more detailed instructions on System 7's file sharing capabilities.*

5. Select the name of the host computer from the list of file servers and click OK. If you have more than one zone in your network, make sure that you have the correct zone selected from the zone list in the lower right-hand corner of the window.

6. Connect to the host computer and select its hard disk drive to be used. We recommend setting the hard drive to automatically open at startup and to save your name and password so that you do not need to open the connection to the host everytime you start your computer.

7. Close the Chooser.

8. Select the SpoolMaster Folder icon which is located in the System Folder of the host's hard disk drive.

9. Make an alias to the SpoolMaster Folder by selecting Make Alias from under the File menu.

10. Copy the SpoolMaster Folder alias into the System Folder on the client computer's hard drive.

11. Rename the alias from "SpoolMaster Folder Alias" to "SpoolMaster Folder". If a SpoolMaster Folder is already in the System folder, throw it away first and replace it with the new alias.

12. Turn on Background printing for the client computer as described in the Activating SpoolMaster section of chapter 5. PowerPrint is now configured for remote printing. When printing is requested on a client Macintosh, the document will be sent to the printer connected to the host computer to be printed.

Note: *Each copy of PowerPrint is licensed for the use of up to twenty-five (25) copies per one (1) printer. If you exceed either of these limits, you will require an additional copy of PowerPrint.*

Communications Toolbox

PowerPrint is fully compatible with the Communications Toolbox. The toolbox allows you to print through a wide variety of tools simply. The Communications Toolbox is built into Apple's System 7 software. If you are not operating under System 7 and require the Communications Toolbox, it is available from your local Apple dealer, APDA, some electronic information services (such as CompuServe and AppleLink), or on the PowerPrint Tools disk available separately from GDT Softworks directly. The Communications Toolbox and necessary tools are usually included with products which require them.

To use the Communications Toolbox, select the PowerPrint driver and then click on the Communications Toolbox icon in the Chooser (the jigsaw puzzle icon). You may need to move the scroll bar down to see it.

If you have selected the Communications Toolbox in the Chooser, clicking on the Communications Toolbox icon will provide access to any communication tools that you have installed in your System Folder. Some tools are provided directly from Apple. Please contact Apple, or more specifically, APDA, if you want to purchase these communication tools. Other tools are provided by third party vendors such as Creative Solutions.

Other Connections

Appendix

Notes for PowerBook Users

PowerPrint is perfectly suited to anyone using a portable Macintosh-compatible computer such as the Apple PowerBook computers. With PowerPrint installed on your portable computer system, you can walk into any office and print to virtually any available printer. When you are on the road, the PowerPrint cable offers even more functionality by allowing you to connect a portable, battery-powered printer to your computer without requiring any external power. This section is intended to provide you with a few hints to help you take advantage of PowerPrint's benefits for the portable Macintosh user.

Installing the drivers

To allow you to print to as many printers as possible it would be ideal to install all of the drivers that PowerPrint provides. This is not practical, however, because of the limitations on disk space for most portable computers. You can install three drivers which will allow you to print to over 650 of the most popular printers. This offers you the maximum flexibility from PowerPrint while minimizing the amount of disk space that will be used. The recommended drivers are:

LaserJet II: Although it may not provide you with access to all the available options, almost all recent HP LaserJet or LaserJet compatible printers can be driven using this driver.

Epson FX: The Epson FX-compatible printer has long been a standard among dot matrix printers and almost every office has one tucked away somewhere. The large majority of 9-pin dot-matrix printers have Epson FX emulation built-in.

Epson LQ: Most 24-pin dot-matrix printers provide Epson LQ emulation.

Paper sizes

The following table lists the dimensions of the paper size options available with PowerPrint printer drivers. Some of these paper sizes are not available on all drivers.

Note: *Sizes listed in bold indicate the official size.*

Paper	Width inches/mm	Height inches/mm
US Letter	**8.50**/216	**11.00**/279
US Legal	**8.50**/216	**14.00**/356
A4 Letter	8.27/**210**	11.69/**297**
B5 Letter	6.93/**176**	9.84/**250**
Com 10 Envelope	**9.50**/241	**4.125**/105
Monarch Envelope	**7.50**/191	**3.875**/98
DL Envelope	4.33/**110**	8.66/**220**
C5 Envelope	6.36/**162**	9.02/**229**
Executive	**7.25**/184	**10.50**/277
International Fanfold	8.27/**210**	12.01/**305**
Computer Paper	**14.00**/356	**11.00**/279
C Size	**17.00**/432	**22.00**/559
4 x 1.5 Label	**4.00**/102	**1.50**/38
3.5 x 1 Label	**3.50**/89	**1.00**/25

Note: *"Tall" and "Wide" in a paper name designate the orientation of the paper when it is inserted into the printer.*

the bitmap font for the printer because most printers offer resolutions higher than the Macintosh screen. It is this scaling process that can cause output to appear jagged on a printer.

Outline Fonts

Outline fonts are everything that bitmapped fonts are not. In an outline font, each character is represented by a flexible mathematical equation which stores the commands necessary to draw the character. This allows the computer to scale and manipulate it as may be required to get it to print at the correct resolution or size. This means that the computer can easily and accurately scale outline fonts without causing the output to appear jagged.

PowerPrint supports the two industry standard outline font technologies which are available: Apple's True-Type and Adobe's Type Manager (ATM) fonts. We recommend using either of these outline font formats to achieve the best results. TrueType is built into System 7 or is available from your local Apple dealer as an add-on to System 6.0.7 (or higher). Adobe Type Manager is available from your local software dealer or mail-order house.

Toshiba & NEC Screen Fonts

Toshiba and NEC-compatible printers have built-in fonts which do not match any standard Macintosh screen fonts. In order to provide you with correct horizontal spacing when printing in draft mode, PowerPrint provides you with these fonts. When you install the Toshiba or NEC drivers, the PowerPrint Installer automatically places these fonts into your System file for you.

Appendix

Printer Compatibility List

This data is based on manufacturer information. Printers which do not appear on this list may be compatible with PowerPrint, but not enough manufacturer information was available on them to be included here. If your printer does not appear on this list and you are unsure about its compatibility with PowerPrint don't hesitate to contact us.

Manufacturer	Model	Driver	Note
Acer America	AcerLaser IIIG	LaserJet IIP	
Acer America	LP-75	LaserJet II	
Acer America	LP-76	LaserJet II	
Acom	LX-3815	LaserJet Plus	
Acom	LX-3820	LaserJet Plus	
Acom	LX-3824	LaserJet Plus	
Acom	LX-3824D	LaserJet Plus	
Acom	LX-5212E	LaserJet Plus	
Acom	LX-528	LaserJet	
Acom	MC-3815	LaserJet	
Acom	MC-3820	LaserJet Plus	
Advanced Matrix	Accel-212	Epson FX	
Advanced Matrix	Accel-214	Epson FX	
Advanced Matrix	Accel-242	Epson LQ	
Advanced Matrix	Accel-244	Epson LQ	
Advanced Matrix	Accel-244 Personal Plotter	Epson LQ	
Advanced Matrix	Accel-500	Epson LQ	
Advanced Matrix	Accel-535	Epson LQ	
Advanced Matrix	Accel-535 Full-Deck	Epson LQ	
Advanced Matrix	Accel-535 Intelli-Plot Turbo	Epson LQ	
Advanced Matrix	MacDot	Epson LQ	
Advanced Matrix	Office Printer Plus	Epson LQ	
Advanced Matrix	TracJet	LaserJet II	
Advanced Matrix	TracJet II	LaserJet II	
Advanced Technologies	LaserPrint 0880/DW-3	LaserJet Plus	
Advanced Technologies	LaserPrint 1270	LaserJet Plus	
Advanced Technologies	LaserPrint 1275	LaserJet Plus	
Advanced Technologies	LaserPrint 1570/DW-2	LaserJet	
Advanced Technologies	LaserPrint 1570/DW-3	LaserJet Plus	
Advanced Technologies	LaserPrint 2670/DW-2	LaserJet	
Advanced Technologies	LaserPrint 2670/DW-3	LaserJet Plus	
Advanced Technologies	LaserPrint O570	LaserJet Plus	
Advanced Technologies	LaserPrint O880/DW-2	LaserJet	
Advanced Technologies	LC-2615	LaserJet Plus	
Advanced Technologies	LC-6020	LaserJet	
Advanced Technologies	LC-6026	LaserJet	
Aedex Corp	608	LaserJet Plus	
AEG Olympia	Laserstar 6	LaserJet Plus	
AEG Olympia	Laserstar 6e	LaserJet II	
AEG Olympia	NP 136 SE	Epson FX	
AEG Olympia	NP 136-24	Epson LQ	
AEG Olympia	NP 30	Epson FX	
AEG Olympia	NP 60	Epson FX	
AEG Olympia	NP 80 SE	Epson FX	
AEG Olympia	NP 80-24	Epson LQ	
AEG Olympia	NP 80-24E	Epson LQ	
AEG Olympia	NPC 136-24	Epson LQ	
Alps	Allegro 24	Epson LQ	
Alps	Allegro 500	Epson LQ	
Alps	Allegro 500XT	Epson LQ	
Alps	ALQ 218	Epson FX	
Alps	ALQ 224	Epson LQ	
Alps	ALQ 224E	Epson LQ	
Alps	ALQ 3001	Epson FX	
Alps	ALQ 318	Epson FX	
Alps	ALQ 324	Epson LQ	
Alps	ALQ 324E	Epson LQ	
Alps	ASP 1000	Epson FX	
Alps	ASP 1600	Epson FX	
Alps	DMX 800	Epson FX	
Alps	LPX 2020	LaserJet II	
Alps	LPX 600	LaserJet Plus	
Alps	LSX 1600	LaserJet II	
Alps	P2000+	Epson FX	
Alps	P2100	Epson FX	
Alps	P2400 C	Epson LQ	
Alps	P2418	Epson FX	
Alps	P2424 C	Epson LQ	
Anzak	2600	Epson FX	
Anzak	3018	LaserJet Plus	
AT & T	477	Epson FX	
AT & T	495	LaserJet	
AT & T	570	Epson FX	
AT & T	571	Epson FX	
AT & T	577	Epson FX	
AT & T	580	Epson LQ	
AT & T	581	Epson LQ	
AT & T	583	Epson LQ	
AT & T	593	LaserJet II	
AT & T	595	LaserJet II	
Axonix	LiteWrite	Epson FX	
Axonix	MilWrite	Epson FX	
Axonix	ThinWrite 100	Epson FX	
BDT Products	ErgoPrint 310	DeskJet	
BDT Products	ErgoPrint 510	LaserJet II	
BDT Products	ErgoPrint 610	LaserJet Plus	

Manufacturer	Model	Driver	Note
Citizen	ProLaser 12	LaserJet II	
Citizen	ProScript 12	LaserJet II	
Citizen	Swift 24E	Epson LQ	
Citizen	Swift 24X	Epson LQ	
Citizen	Swift 9	Epson FX	
Citizen	Swift 9X	Epson FX	
Citizen	Tribute 124	Toshiba P	
Citizen	Tribute 224	Toshiba P	
Continental Systems	L-2060	LaserJet II	
Copal	SC-1250	Epson FX	
Copal	SC-5930	Epson FX	
Copal	SC-6730	Epson LQ	
Copal	Writehand 5900	Epson FX	
Copal	Writehand 5930	Epson FX	
Copal	Writehand 6700	Epson LQ	
Copal	Writehand 6730	Epson LQ	
CPT Corporation	LP-15	LaserJet Plus	
CPT Corporation	LP-8	LaserJet Plus	
CPT Corporation	LP-8GS	LaserJet Plus	
CPT Corporation	PS-8	LaserJet Plus	
CSS Laboratories	OAW153	LaserJet II	
CSS Laboratories	OAW223	LaserJet II	
CTSI International	Infoscribe 1000	Epson FX	
CTSI International	Infoscribe 1100	Epson FX	
Daisy Systems	M7001	Epson FX	
Daisy Systems	M8001	Epson LQ	
Data General	6474	LaserJet	
Data General	6475	LaserJet	
Data General	6476	LaserJet	
Data General	6477	LaserJet	
Data General	6514	Epson LQ	
Data General	6515	Epson LQ	
Data General	6594	Epson FX	
Data General	6640	LaserJet II	
Data General	6640T	LaserJet II	
Data General	6771	LaserJet II	
Data General	6772	LaserJet II	
Data General	6773	LaserJet II	
Dataproducts	6298	Epson FX	
Dataproducts	8500	Epson FX	
Dataproducts	9030	Epson FX	
Dataproducts	9034	Epson LQ	
Dataproducts	9040	Epson FX	
Dataproducts	9044	Epson LQ	
Dataproducts	LZR-1219	LaserJet Plus	
Dataproducts	LZR-1230	LaserJet Plus	
Dataproducts	LZR-1274	LaserJet Plus	
Dataproducts	LZR-1650	LaserJet II	
Dataproducts	LZR-2450	LaserJet II	
Dataproducts	LZR-2455	LaserJet II	
Dataproducts	LZR-650	LaserJet II	
DataSource	M7001	LaserJet Plus	
Datasouth	8/1080	LaserJet	
Datasouth	8/3080	Epson FX	
Datasouth	8/5080	Epson FX	
Datasouth	DS 400	Epson FX	
Datasouth	Performax A600	Epson FX	
Datasouth	XL 300	Epson FX	
Datasouth	XL 300 DD	Epson FX	

Manufacturer	Model	Driver	Note
Datasouth	XL 400	Epson FX	
DEC	DecJet 1000	DeskJet	
DEC	DecJet 2000	DeskJet	
DEC	DecLaser 1100	Canon LBP	
DEC	DecLaser 1150	Canon LBP	
DEC	DecLaser 2100	Canon LBP	
DEC	DecLaser 2150	Canon LBP	
DEC	DecLaser 2200	Canon LBP	
DEC	DecLaser 2250	Canon LBP	
DEC	DecLaser 3200	LaserJet II	
DEC	DecLaser 3250	LaserJet II	
Decision Data	6415	Epson FX	
Decision Data	6424	LaserJet	
Decision Data	6424 DI	LaserJet	
Decision Data	6424 SI	LaserJet	
Derex Inc	S 3000II	LaserJet II	
Desktop Systems	Laser Printer	LaserJet II	
Digital Design	616-MLP	LaserJet II	
Digital Design	636	LaserJet Plus	
Digital Design	656	LaserJet II	
Digital Design	Plus-Micr 656	LaserJet II	
Electronic Form	Formwriter 10	LaserJet II	
Electronic Form	Formwriter 10X	LaserJet II	
Electronic Form	Formwriter 10XD	LaserJet II	
Electronic Form	Formwriter 2	LaserJet II	
Electronic Form	Formwriter 2E	LaserJet II	
Electronic Form	Formwriter 2EX	LaserJet II	
Electronic Form	Formwriter 2EXD/MX	LaserJet II	
Electronic Form	Formwriter 2X	LaserJet II	
Electronic Form	Formwriter 4	LaserJet II	
Electronic Form	Formwriter 8	LaserJet II	
Epson	ActionLaser	LaserJet II	
Epson	ActionLaser II	LaserJet IIP	
Epson	ActionLaser Plus	LaserJet II	
Epson	ActionPrinter AP-2000	Epson FX	
Epson	ActionPrinter AP-2500	Epson FX	
Epson	ActionPrinter AP-3000	Epson LQ	
Epson	ActionPrinter AP-4000	Epson LQ	
Epson	ActionPrinter AP-4500	Epson LQ	
Epson	ActionPrinter AP-5000	Epson LQ	
Epson	ActionPrinter AP-5500	Epson LQ	
Epson	ActionPrinter T-1000	Epson FX	
Epson	Apex 80	Epson FX	
Epson	DFX-5000	Epson FX	
Epson	DFX-8000	Epson FX	
Epson	EPI-4000	LaserJet II	
Epson	EPL-6000	LaserJet IIP	
Epson	EPL-7000	LaserJet IIP	
Epson	EX-1000	Epson FX	
Epson	EX-800	Epson FX	
Epson	FX-100	Epson FX	
Epson	FX-100 +	Epson FX	
Epson	FX-1050	Epson FX	
Epson	FX-185	Epson FX	
Epson	FX-286	Epson FX	
Epson	FX-286e	Epson FX	
Epson	FX-80	Epson FX	
Epson	FX-80 +	Epson FX	
Epson	FX-85	Epson FX	

Manufacturer	Model	Driver	Note
Hewlett Packard	LaserJet 500 Plus	LaserJet Plus	
Hewlett Packard	LaserJet II	LaserJet II	
Hewlett Packard	LaserJet II D	LaserJet II	
Hewlett Packard	LaserJet II P	LaserJet IIP	
Hewlett Packard	LaserJet III	LaserJet III	
Hewlett Packard	LaserJet III D	LaserJet III	
Hewlett Packard	LaserJet III P	LaserJet IIP	
Hewlett Packard	LaserJet III Si	LaserJet III	
Hewlett Packard	LaserJet IIP Plus	LaserJet IIP	
Hewlett Packard	LaserJet Plus	LaserJet Plus	
Hewlett Packard	QuietJet	ThinkJet	
Hewlett Packard	QuietJet Plus	ThinkJet	
Hewlett Packard	RuggedWriter	Epson LQ	
Hewlett Packard	RuggedWriter 480	Epson LQ	
Hewlett Packard	ThinkJet	ThinkJet	
Honeywell Bull	462	Epson FX	
Honeywell Bull	466	Epson FX	
Hyundai	HDP-1810	Epson FX	
Hyundai	HDP-1820	Epson FX	
Hyundai	HDP-910	Epson FX	
Hyundai	HDP-920	Epson FX	
Hyundai	HLP-6000	LaserJet IIP	
Hyundai	Pinovia 2430	Epson LQ	
Hyundai	Pinovia 2440	Epson LQ	
IBM/Lexmark	4019 LaserPrinter	LaserJet II	
IBM/Lexmark	4019 LaserPrinter E	LaserJet II	
IBM/Lexmark	4072 Execjet	Epson LQ	
IBM/Lexmark	4226 model 302	Epson FX	
IBM/Lexmark	LaserPrinter 10	LaserJet II	
IBM/Lexmark	LaserPrinter 10L	LaserJet II	
IBM/Lexmark	LaserPrinter 5e	LaserJet II	
IBM/Lexmark	LaserPrinter 6	LaserJet II	
IBM/Lexmark	PPS II model 2380	Epson FX	
IBM/Lexmark	PPS II model 2381	Epson FX	
IBM/Lexmark	PPS II model 2390	Epson FX	
IBM/Lexmark	PPS II model 2391	Epson FX	
IBM/Lexmark	Proprinter XL 24E	Canon BJ-330	
IBM/Lexmark	PS/1 printer	Canon BJ-330	
Idea Courier	13087	Epson FX	
Idea Courier	13412-06	LaserJet II	
Idea Courier	9375	LaserJet Plus	
Idea Courier	9376	LaserJet Plus	
Image Systems	Megapro +/30	LaserJet Plus	
Image Systems	Megapro/30	LaserJet Plus	
Image Systems	Megaserve/30	LaserJet	
Impression Technology	500 Twin-Ax	Epson LQ	
Impression Technology	ZL1 Twinax	LaserJet II	
Interface Systems	7028-D	LaserJet II	
JDL	AutoPlotter	Epson LQ	
JDL	AutoPlotter XP	Epson LQ	
JDL	OmniPlotter	Epson LQ	
JPS MicroSystems	MAXX/8	LaserJet II	
JRL Systems	LP300-2	LaserJet	
JRL Systems	LP300-7	LaserJet	
JRL Systems	LP330-SS	LaserJet	
JRL Systems	LP340-SS	LaserJet	
JRL Systems	LP400-7	LaserJet	
JRL Systems	LP401-2	LaserJet	
Kentek Info Systems	K-2 +	LaserJet II	
Kentek Info Systems	K-3	LaserJet II	
Kentek Info Systems	K-30	LaserJet II	
Kentek Info Systems	K-30D	LaserJet II	
Kentek Info Systems	K-4	LaserJet II	
Kodak	Diconix 180si	Epson FX	
Kodak	Diconix 300	Epson FX	
Kodak	Diconix 300W	Epson FX	
Kodak	Diconix 701	DeskJet	
Kodak	EktaPlus 7008	LaserJet	
Kodak	EktaPlus 7016	LaserJet	
Konica Corp	LP-3015	LaserJet II	
Konica Corp	LP-3110	LaserJet II	
Kyocera	F-1010	LaserJet Plus	
Kyocera	F-1800A	LaserJet II	
Kyocera	F-2000A	LaserJet II	
Kyocera	F-2010	LaserJet II	
Kyocera	F-3000A	LaserJet II	
Kyocera	F-3010	LaserJet II	
Kyocera	F-5000A	LaserJet II	
Kyocera	F-800	LaserJet II	
Kyocera	F-800A	LaserJet II	
Lee Data	1314	Epson FX	
Lee Data	1314W	Epson FX	
Lee Data	1315	Epson FX	
Lexi Corp	1019 II	LaserJet II	
Lexi Corp	1087	LaserJet	
Lexi Corp	1087 II	LaserJet	
Lexi Corp	2019	LaserJet	
Lexi Corp	2087	LaserJet	
Lexi Corp	3019 II	LaserJet	
Lexi Corp	3087 II	LaserJet	
Mannesmann Tally	MT 130/24	Epson LQ	
Mannesmann Tally	MT 130/9	Epson FX	
Mannesmann Tally	MT 131/24	Epson LQ	
Mannesmann Tally	MT 131/9	Epson FX	
Mannesmann Tally	MT 222	Epson LQ	
Mannesmann Tally	MT 230/24	Epson LQ	
Mannesmann Tally	MT 230/9	Epson FX	
Mannesmann Tally	MT 290	Epson FX	
Mannesmann Tally	MT 330	Epson LQ	
Mannesmann Tally	MT 340	Epson FX	
Mannesmann Tally	MT 490	Epson FX	
Mannesmann Tally	MT 645	Epson FX	
Mannesmann Tally	MT 661	Epson FX	
Mannesmann Tally	MT 735	LaserJet II	
Mannesmann Tally	MT 7400C	DeskJet	2
Mannesmann Tally	MT 81	Epson FX	
Mannesmann Tally	MT 82	Epson LQ	
Mannesmann Tally	MT 85	Epson FX	
Mannesmann Tally	MT 86	Epson FX	
Mannesmann Tally	MT 87	Epson FX	
Mannesmann Tally	MT 88	Epson FX	
Mannesmann Tally	MT 904	LaserJet IIP	
Mannesmann Tally	MT 905	LaserJet II	
Mannesmann Tally	MT 906	LaserJet II	
Mannesmann Tally	MT 906WP	LaserJet II	
Mannesmann Tally	MT 908	LaserJet III	
Mannesmann Tally	MT 910	LaserJet Plus	
Mannesmann Tally	MT 911	LaserJet II	

Manufacturer	Model	Driver	Note
OTC	LaserMatrix 1000 Model 2	LaserJet II	
OTC	LaserMatrix 1000 Model 3	LaserJet II	
OTC	LaserMatrix 1000 Model 5	LaserJet III	
OTC	LaserMatrix 1000 Model 6	LaserJet II	
OTC	OT-700N	Epson FX	
Packard Bell	PB9024	Epson LQ	
Packard Bell	PB9500	LaserJet II	
Packard Bell	PB9815	LaserJet II	
Packintell	LQ 386	Epson LQ	
Packintell	SX 850	Epson FX	
Panasonic	KX-P1010	Epson FX	
Panasonic	KX-P1080i	Epson FX	
Panasonic	KX-P1091	Epson FX	
Panasonic	KX-P1092	Epson FX	
Panasonic	KX-P1093	Epson FX	
Panasonic	KX-P1123	Epson LQ	
Panasonic	KX-P1124	Epson LQ	
Panasonic	KX-P1124i	Epson LQ	
Panasonic	KX-P1180	Epson FX	
Panasonic	KX-P1191	Epson FX	
Panasonic	KX-P1524	Epson LQ	
Panasonic	KX-P1592	Epson FX	
Panasonic	KX-P1595	Epson FX	
Panasonic	KX-P1624	Epson LQ	
Panasonic	KX-P1654	Epson LQ	
Panasonic	KX-P1695	Epson FX	
Panasonic	KX-P2123	Epson LQ	
Panasonic	KX-P2124	Epson LQ	
Panasonic	KX-P2180	Epson FX	
Panasonic	KX-P2624	Epson LQ	
Panasonic	KX-P4410	LaserJet IIP	
Panasonic	KX-P4420	LaserJet II	
Panasonic	KX-P4430	LaserJet III	
Panasonic	KX-P4450i	LaserJet II	
PCPI	1000	LaserJet Plus	
PCPI	1030	LaserJet II	
PCPI	1030-ID	LaserJet II	
PCPI	1030-IS	LaserJet II	
PCPI	1030-LN03+	LaserJet II	
PCPI	1030-PP	LaserJet II	
PCPI	1032	LaserJet II	
PCPI	1034	LaserJet II	
PCPI	1035	LaserJet II	
PCPI	1100-PS	LaserJet II	
PCPI	2000	LaserJet Plus	
PCPI	2020	LaserJet II	
PCPI	2020-ID	LaserJet II	
PCPI	2020-IS	LaserJet II	
PCPI	2020-PP	LaserJet Plus	
PCPI	2022	LaserJet Plus	
PCPI	2024	LaserJet II	
PCPI	2025	LaserJet II	
PCPI	2500-ID	LaserJet II	
PCPI	2500-IS	LaserJet II	
PCPI	2500-OA	LaserJet II	
PCPI	2500-PP	LaserJet II	
PCPI	3000	LaserJet Plus	
PCPI	3000-3X	LaserJet Plus	
PCPI	3020	LaserJet II	

Manufacturer	Model	Driver	Note
PCPI	3020-ID	LaserJet II	
PCPI	3020-IS	LaserJet II	
PCPI	3020-LN03+	LaserJet II	
PCPI	3020-PP	LaserJet II	
PCPI	3022	LaserJet II	
PCPI	3024	LaserJet II	
PCPI	3025	LaserJet II	
Pentax Technologies	Laserfold 240	Epson FX	
Prime Computer	3450	LaserJet Plus	
Prime Computer	3451	LaserJet II	
Printek	930/DLX	Epson FX	
Printek	FormsPro 2000	Epson FX	
Printek	FormsPro 4000	Epson FX	
Printer Systems	PSC IntelliPrint 106	LaserJet II	
Printer Systems	PSC IntelliPrint 218	LaserJet II	
Printronix	2324 Net LANPrinter	LaserJet II	
Printronix	L1012	LaserJet Plus	
Printronix	L2324-D	LaserJet II	
Printronix	L2324-S	LaserJet II	
Printronix	L2416 (IPDS)	LaserJet II	
Printronix	L2624	LaserJet II	
Printronix	L3824	LaserJet II	
Printronix	P1013	Epson LQ	
PrintWare	720 IQ/1200HD	LaserJet	
Q/COR	QuadLaser I	LaserJet Plus	
QMS	Big Kiss	LaserJet	
QMS	ImageStation/S	Epson FX	
QMS	Kiss Plus	LaserJet Plus	
QMS	PS 800 +	LaserJet Plus	
QMS	PS 800 II	LaserJet Plus	
QMS	SmartWriter 8/3X	LaserJet Plus	
QMS	SmartWriter 80 +	LaserJet Plus	
Quadram	QuadLaser +	LaserJet	
Quadram	QuadLaser I	LaserJet	
Qume	CrystalPrint Series II	LaserJet II	
Qume	CrystalPrint Super Series II	LaserJet II	
Qume	CrystalPrint WP	LaserJet	
Qume	LaserTen	LaserJet Plus	
Raster Devices	RD2	LaserJet	
Relisys	RP 1814	Epson FX	
Relisys	RP 2410	Epson FX	
Ricoh	Laser 6000	LaserJet Plus	
Roland	LP-800	LaserJet II	
Roland	PR-1212A	Epson FX	
Roland	PR-1515	Epson LQ	
Roland	PR-2416	Epson LQ	
Roland	PR-2417	Epson LQ	
Roland	PR-2465	Epson LQ	
Roland	PR-9101	Epson FX	
Roland	PR-9104	Epson FX	
Roland	PR-9606	Epson FX	
Rosetta Technologies	RT3105	LaserJet Plus	
Rosetta Technologies	RT4115	LaserJet II	
Rosetta Technologies	RT4224	LaserJet II	
Rosetta Technologies	RT4230	LaserJet III	
Rosetta Technologies	RT4324	LaserJet II	
Rosetta Technologies	RT4330	LaserJet III	
Rosetta Technologies	RT4430	LaserJet III	
Rosetta Technologies	RT4530	LaserJet III	

Manufacturer	Model	Driver	Note
Texas Instruments	8920	Epson FX	
Texas Instruments	8930	Epson FX	
Texas Instruments	MicroLaser	LaserJet II	
Texas Instruments	MicroLaser Plus	LaserJet II	
Texas Instruments	MicroLaser Plus PS17	LaserJet II	
Texas Instruments	MicroLaser Plus PS35	LaserJet II	
Texas Instruments	MicroLaser PS	LaserJet II	
Texas Instruments	MicroLaser PS17	LaserJet II	
Texas Instruments	MicroLaser XL	LaserJet II	
Texas Instruments	MicroLaser XL PS17	LaserJet II	
Texas Instruments	MicroLaser XL PS35	LaserJet II	
Texas Instruments	MicroLaser XL Turbo	LaserJet II	
Toshiba	1340	Toshiba P	
Toshiba	1350	Toshiba P	
Toshiba	Expresswriter 301	Toshiba P	
Toshiba	Expresswriter 311	Toshiba P	
Toshiba	Expresswriter 420	Epson LQ	
Toshiba	Expresswriter 440	Epson LQ	
Toshiba	GX200	LaserJet III	
Toshiba	GX400	LaserJet III	
Toshiba	P321 SL	Toshiba P	
Toshiba	P341 SL	Toshiba P	
Toshiba	P351	Toshiba P	
Toshiba	P351 C-2	Toshiba P	
Toshiba	P351 SLC	Toshiba P	
Toshiba	P351 SX	Toshiba P	
Toshiba	PageLaser 12	LaserJet II	
Toshiba	PageLaser 6	LaserJet II	
Troy	308	LaserJet	
Troy	315	LaserJet	
Troy	410	LaserJet II	
Unisys	AP 1324	Epson LQ	
Unisys	AP 1327	Epson FX	
Unisys	AP 1329	Epson FX	
Unisys	AP 1337	Epson LQ	
Unisys	AP 1339	Epson LQ	
Unisys	AP 9206-1	LaserJet Plus	
Unisys	AP 9210	LaserJet II	
Unisys	AP 9215-1	LaserJet Plus	
Unisys	AP 9230	LaserJet Plus	
Unisys	Model 37	LaserJet Plus	
Wang	DM50/300	Epson FX	
Wang	DM66/200	Epson LQ	
Wang	HQ300	Epson LQ	
Wang	LCS-15	LaserJet Plus	
Wang	LCS-8	LaserJet Plus	
Wang	LDP-8	LaserJet II	
Wang	PM060	Epson LQ	
Xerox	4030 II	LaserJet II	
Xerox	4045 Model 160	LaserJet Plus	
Xerox	4197 MICR	LaserJet II	
Xerox	4213	LaserJet II	
XPoint	XP1500	LaserJet II	
XPoint	XP2400	LaserJet II	

Notes:

1 These printers are 24-pin printers, but use only 9 pins when in Epson FX emulation.

2 These color printers are supported in black and white mode only.

3 NEC serial interface rev. 3.0 (or newer) ROMs must be present to use the serial port; if not, the parallel port must be used (GDT S-P Converter cable).

4 Some models of this printer do not have Epson FX emulation and so will not work with PowerPrint. You can verify that your printer supports Epson FX emulation by checking the printer manual, settings, or by contacting the printer manufacturer.

5 Due to the design of this printer, a short IBM Printer Extension cable must be used between the printer's parallel port and the GDT S-P Converter cable. This standard extension cable is available from most PC dealers.

The background printing selection in the Chooser is greyed out.

- SpoolMaster and its associated files must be installed for this option to be available. Use the Installer to install a "Package" as described in chapter 3.
- SpoolLauncher (System 7) or SpoolLauncher Startup (System 6.0.x) was not run at startup. Restart the computer without any INIT/Extension "picking" utilities loaded and do not hold down the shift key or the mouse-button while it is starting up.

The printer does not respond at all.

- Verify that you are using the PowerPrint cable to connect the printer to your Macintosh.
- Ensure that the cable connections are secure.
- Ensure that you have the correct driver selected in the Chooser.
- Verify that the printer is on-line.
- Ensure that the printer is set for parallel communications.

An alert with error -97 is displayed when trying to print.

- The port which you selected for the printer driver in the Chooser is currently in use by something else on your computer. If you are connecting to the printer port, ensure that AppleTalk is set to "inactive".

The printer prints garbage.

- Ensure that you are selecting the correct driver for the printer in the Chooser (see the Printer Compatibility List).
- Verify that the printer is configured to use the same emulation as the driver (see the printer's reference manual).

When printing with a dot-matrix printer at 360x360 resolution, each line is printed twice.

- The printer's highest resolution does not support 360x360. Print at 360x180 or 180x180 only.

Vertical lines are printed "wavy" when printing with a dot-matrix printer.

- Turn on unidirectional printing in the Print Options dialog. Bidirectional printing is faster, but not as accurate.

When printing with a laser printer, the top of the page is printed correctly, but the bottom of the page is blank.

- The printer does not have enough memory to image the entire page at the selected resolution. Upgrade the memory in the printer so there is at least 1.5Mb RAM installed or print at a lower resolution.

Portions of the page are not printed when printing with background printing turned on.

- Turn off background printing.
- Allocate more memory to SpoolMaster by selecting the SpoolMaster icon in the System/ Extensions folder, selecting "Get Info" (under the File menu) and increase the preferred application size (500K is usually adequate).

Poor spacing when printing in Draft mode.

- Use the proper screen font (See Draft in the Print dialog section of chapter 4).

The spaces between words are very wide or too narrow while printing in graphics mode.

- Make sure you are using an outline font on the screen.

Application notes

The application notes which follow are provided to improve your printing performance and help you get the most from your programs. They are also provided to notify you of any potential difficulties you may encounter while printing with PowerPrint and to suggest work-arounds when available. If a solution to a problem is not given, consult the Troubleshooting notes in the previous section of this Appendix; if that doesn't help, read Getting technical support near the end of this Appendix. Please also read the Read Me! document on disk one of the PowerPrint Disks.

General notes

Your application should support fractional character widths to allow PowerPrint to properly space text in Graphics and Draft modes. If an application doesn't support this feature or if you have not turned on this feature, PowerPrint will attempt to turn it on in the background while printing. For best results, turn on fractional character widths in any application that supports it. Check your application manual for more information on this feature.

Specific notes

The notes which follow apply to the most current version available at the time this manual was printed. If a specific version is listed the notes apply to that version only. Consult the Read Me! file on your PowerPrint drivers disk for the latest information.

Aldus, PageMaker

- Cannot print double-sided sheets if duplex printing is selected when you print an entire

Claris, MacDraw II & MacDraw Pro

- Always turns off Precision Bitmap Alignment.
- Must use the straight line tool when you are drawing straight lines, not the freehand tool.

Claris, MacWrite II and MacWrite Pro

- Turn on Fractional Character Widths in the Preferences dialog box (Edit menu); upgrade older versions of MacWrite to version 1.1 or higher for this feature.

Deneba, Canvas

- Always turns off Precision Bitmap Alignment.

Fifth Generation, SuperLaserSpool

- PowerPrint's background printing feature must be turned off in the Chooser.
- Use only version 3.0 or higher.
- If you experience any anomalies, try throwing away the SuperLaserSpool files for the PowerPrint driver which are stored in the System Folder (e.g. "SLS -> LaserJet II" in the SuperLaserSpool folder and the "Printer PP..." file stored in the Extensions folder).

Generic Software, Generic CADD

- Rename the PowerPrint driver to 'ImageWriter' or 'LaserWriter'.

Intuit, Quicken

- Use version 3.0 or higher.
- Select the Sheet Feeder option in the Check Setup window (File menu) from within Quicken to force Quicken to print more than one check per page.

so you don't have to keep turning this feature on whenever you create a new document. Set Default will set all the settings in that dialog box as the default for new documents.

Microsoft, Works

- May have problems printing with PowerPrint if a word processor document is too complex.
- If characters are being clipped, turn off Fractional Widths in the Page Setup/Options dialog.

Paragon, Nisus

- Turn on Enable Fractional Font Spacing in the Editing dialog box (Preferences sub-menu of the File menu).

Quark, XPress 3.0

- May not support printing a page range.
- Upgrade to the most recent version available.

T/Maker, WriteNow

- Turn on Use Printer Spacing in the Page Setup dialog box (File menu).

TimeWorks, Publish-It

- Turn off Precision Bitmap Alignment.

WordPerfect, WordPerfect

- Select Fractional Widths (Screens sub-menu of the Special menu).
- Turn on Fractional Widths in the Page Setup dialog box (under the File menu).

cation you are using loaded and ready to test.

- Be prepared to describe, in detail, your problem and what you have done prior to its occurrence. If you have experienced system errors or unexpected quits, please make a note of the ID number.
- Have your PowerPrint, printer, and application manuals readily available.

Here is how you can contact GDT technical support:

- By electronic mail:
  - on CompuServe: 72137,3246
  - on AppleLink: GDT.MKT
  - on America Online: GDT
- By fax (24 hrs): 604-291-9689
  Please mark "Attn. Technical Support" on the fax.
- By US mail: GDT Softworks Inc.
  Attn. Technical Support
  P.O. Box 1865
  Point Roberts, WA 98281
- By other mail or courier: GDT Softworks Inc.
  Attn. Technical Support
  #188-4664 Lougheed Hwy.
  Burnaby, BC Canada V5C 6B7
- By phone: 604-299-3379
  Our Technical Support phone lines are available Monday to Friday from 9:00 AM to 4:00 PM Pacific Time.

Glossary

active window: The window where the last action took place, usually the front-most window.

Apple menu: The menu farthest to the left in the menu bar, indicated by an Apple symbol, from which you choose desk accessories, or items in the Apple Menu Folder when operating under System 7.

application: A program that performs a specific task, such as word processing, database management, or graphics.

background printing: Printing a document on the computer while, at the same time, performing other activities with the computer. (See also Spooler)

backup: (n.) A copy of a disk or of a file on a disk. It's a good idea to make backups of all your important disks and to use the copies for everyday work, keeping the originals in a safe place.

back up: (v.) To make a spare copy of a disk or of a file on a disk. Backing up your files and disks ensures that you won't lose information if the original is lost or damaged.

balloon help: A System 7 feature which displays a description of an object on the screen, such as an icon or an option in a dialog box. You can turn balloon help on and off with the Show Balloons and Hide Balloons commands in the Help menu (right side of the menu bar).

baud: (1) A unit of data transmission speed: the number of discrete signal-state changes (signal events) per second. Often, but not always, equivalent to bits per second (bps). (2) The maximum speed at which data can be sent down a channel, such as a telephone line; often confused with the actual speed, which is measured in bps.

close box: The small white box on the left side of the title bar of an active window. Clicking it closes the window.

compatibility: The ability of devices and applications to work with each other.

compatible: Capable of running without problems on a particular computer system.

configure: To set up software or hardware to operate in a particular way. For example, you give software the necessary settings for communicating with a printer. You can configure hardware (a printer or interface card) by resetting physical elements like DIP switches.

DeskJet series: The series of Hewlett-Packard printers comprised of the DeskJet, DeskJet Plus, DeskJet 500, and DeskJet Portable.

desktop: The Macintosh working environment--the menu bar and the gray area on the screen. At the Finder level, the desktop displays at least the Trash and the current startup disk icon.

dialog box: A box that contains a message requesting more information from you. Sometimes the message warns you that you're asking your computer to do something it can't do or that you're about to destroy some of your information. In these cases, the message is often accompanied by a beep.

DIP: See dual in-line package.

DIP switch: A small switch that can be set manually for two different values (usually on or off).

dots per inch (dpi): a measurement of printer resolution by the number of pixels per linear inch.

File menu: A menu that lists commands that affect whole documents--commands like Save, Print, and Quit.

Finder: The application that maintains the Macintosh desktop and starts up other programs at your request. You use the Finder to manage documents and applications, and to get information to and from disks.

folder: A holder of documents, applications, and even other folders on the desktop. Folders allow you to organize information in any way you want.

font: A complete set of characters in one design, size, and style. In traditional typography, font may be restricted to a particular size and style or may comprise multiple sizes, or multiple sizes and styles, of a typeface design.

Font/DA Mover: An application that allows you to add or remove fonts and desk accessories under System 6.0.x.

font family: A complete set of characters for one typeface design, including all styles and sizes of the characters in that font.

font file: A specific file of fonts manipulated through the Font/DA Mover.

font mapping: The matching of a Macintosh screen font to the a printer's internal or cartridge font. Mapping is specific to size as well as typeface.

graphics mode: A way of displaying text and graphics on the screen through patterns of dots. See text mode.

grid: A series of horizontal, vertical, or diagonal lines used to design a page layout for publication.

a minimum margin where the printhead or laser beam cannot draw.

map/mapping: See font mapping.

modem port: One of two serial interface ports on the Macintosh, marked by a telephone handset icon.

object-oriented graphics: Items that are mathematically described in QuickDraw.

on-line: (adj.) Currently connected to and under the control of the computer. Can refer to equipment such as printers and drives, networks, storage media such as disks, and the information they contain.

open: To make available. You open files or documents in order to work with them. A file cannot be read from or written to until it is open. In the desktop interface, opening an icon causes a window with the contents of that icon to come into view. You can then perform further actions in the window when it's active.

outline font: A font that is described mathematically and can be used to generate bitmap images suited to a printer's resolution.

output: (n.) Information transferred from a computer to some external destination, such as the display screen, a disk drive, a printer, or a modem. See also input.

parallel interface: An interface in which several bits of information (typically eight bits, or one byte) are transmitted simultaneously over different wires or channels.

parallel printer: A printer that accepts information from the computer by way of a parallel interface.

pitch: The distance between printed characters.

serial interface: An interface in which information is transmitted sequentially, one bit at a time, over a single wire or channel.

serial printer: A printer that accepts information through a serial interface.

shift-click: A technique that allows you to extend or shorten a selection by positioning the pointer at the end of what you want to select and holding down the shift key while clicking the mouse button.

Spanky: A hip little character that has often been seen enjoying the sunshine while walking his dog along the seawall in Stanley Park. It has been said that he has a fetish for balloons and almost always is carrying a couple while he is on his strolls. Rumor has it that he even takes a hot air balloon for his daily commute into work!

spooler: A utility that stores print jobs in queues and allow for background printing. This software frees up the computer before the printing has been completed so that you can move on to bigger and better things. PowerPrint includes a spooler called SpoolMaster, which is described in chapter 5.

startup disk: A disk with all the necessary program files--such as the Finder and System files contained in the System Folder for the Macintosh--to operate the computer. Sometimes called a boot disk.

style sheets: Default page layout settings stored by an application. These are often used to set up new documents in a standard format.

System 7: Apple's latest revolutionary Operating System for the Macintosh. This is the sort of stuff that causes Mac-envy in IBM users. If you don't have it, you want it! Contact your local Apple dealer for upgrade information.

Glossary

A

activating
  printer drive 26
  SpoolMaster 74
active window 122
add button 36
Adobe Type Align 15
Adobe Type Manager 15, 98
Amax emulator 9
America Online 120
Amiga computers 9
Andor emulator 9
Apple menu 26, 32, 74, 86, 122
AppleLink 120
AppleTalk 27, 33, 84, 85, 86, 95
application notes 114–118
Atari computers 9

B

back up 122
background printing 33, 72, 74, 110, 112, 122
backup 18, 22
balloon help 27, 73, 122
baud 122
best
  quality 57
  radio button 63
bidirectional 65
Bigger Top Margin 48
Bins dialog 67
bitmap 123
  fonts 97–98, 109, 123
bitmap fonts 47
bitmapped character 123
built-in font 123
button 123

C

cable connection 24
cancelling a document 77
Canon LBP-4 68
Canvas 116
cartridge 32, 34
  dialog 32
  fonts 60, 61
changing the printing order 78
checkbox 123
Chooser 26, 27, 32, 74, 95, 109, 110, 123
ClarisWorks 115
click 123
close 123
close box 124
Color 62
comments 11
Communications Toolbox 26, 27, 32, 75, 90
compatibility 124
compatible 124
  printers 100
CompuServe 120
computer requirements 9
configure 124
contact information 91, 120
control panel 25
Copies 64
Cover page 66, 111
custom paper size 42, 54–55

D

default mappings 39
default settings 37, 48
Delete button 37, 51
desk accessory 32
desktop 124
dialog box 124
DIP switch 25, 124
dot matrix printer 94
dot-matrix printer 112
dots per inch 124
double click 125

MacWrite Pro 116
mail 120
manual organization 10
mapping 128
margin 45
margins 53–54, 127
memory requirements 9
mirror-image 47
modem port 24, 26, 27, 32, 89, 95, 128
MultiLedger 115

N

negative printing 47
NetSerial 84, 84–85
NetWare 84
Networking 84
New button 51
Nisus 118
No Gaps Between Pages 45

O

odd pages 64
on-line 128
open 128
Orientation 43
outline font 14, 61, 98, 128
output 128

P

Page Setup dialog 28, 42–55
Page Setup Options dialog 46–48
PageMaker 114
Pages 63
Paper dialog 49
Paper feed 64
paper height 52
Paper List 50
paper name 52
Paper pop-up menu 50
Paper radio buttons 50
Paper size 96
paper size 42, 42–43
paper width 52
parallel 14, 24, 25, 128
phone 120
PhoneNet 84
Photocopy Reduction 44
pitch 123, 128
pixel 129
pop-up menu 129
port 129
portable guidelines 95
portable printing 94
portrait printing 43
PostScript 14
PowerBook 23, 27, 33, 94–95
PowerPrint 14, 22
PowerPrint Converter cable 8, 14, 24, 33
PowerPrint Tools 90
Precision Bitmap Alignment 47, 109
preferences 81
print
  dialog 28, 56–70
  mode 56–62
  order 65
  quality 63, 65
Print Options dialog 64
printable area 53, 54
printer
  compatibility 100
  driver 8, 9, 14, 26, 74, 129
  port 24, 26, 32, 89, 95, 129
  requirements 9
  settings 25
  setup 24–26
Printer Reference Stack 25
Printing with SpoolMaster 75
PrintLink Collection 22
PrintShop 115

Index

1 Chapter 1: **Introduction**

2 Chapter 2: **QuickStart**

3 Chapter 3: **Installation**
Connecting the cable, running the installer, test print

4 Chapter 4: **Dialogs**
Chooser, Cartridges, Page Setup, Page Setup Options, Paper, Settings, Print, Print Options, Trays/Bins

5 Chapter 5: **SpoolMaster**
About SpoolMaster, activating/deactivating the spooler, using SpoolMaster, other features

6 Chapter 6: **Advanced Communications**
Networking, remote printing, switch-boxes, other Macintosh connections, Communications Toolbox

7 Chapter 7: **Appendix**
Hints for PowerBook users, paper sizes, installing fonts, troubleshooting and application notes, getting technical support

8 Chapter 8: **Glossary**

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